



Vermont Clean Energy Finance Report

Report #2: Focus on Local Government

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Prepared by:



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I. Executive Summary

Vermonters have long supported a wise use of energy, as evidenced by statute dating back nearly forty years (see sidebar). Over time, this has included energy efficiency, energy conservation and transitioning towards a renewable energy economy and infrastructure. For example, Vermont was the first to develop a state-wide efficiency utility, has numerous statutory requirements to increase the deployment of renewable energy, and has recently legislated distribution utilities to efficiently and affordably assist Vermonters in shifting away from fossil fuels through strategic electrification. At the core of this support is an understanding that saving energy results in saving money, helps grow the local economy and reduces carbon emissions (with additional benefits such as increasing Vermonters' health and comfort).¹

When Vermont towns and cities undertake energy projects such as weatherizing a town hall or installing a solar array on a municipal landfill, the savings achieved through these actions accrue to all of the tax payers and residents in the local community. And, while local Vermont entities have accomplished a number of energy projects, there is significantly more that can be done. Obstacles to completing energy upgrades are multiple and range from the initial cost, to a lack of town staff who can oversee the project, to obtaining local support to apply for and receive financing to complete the project. Indeed, when municipal staff and volunteers were asked what would be most helpful for them to complete more projects the two most prevalent answers were "financial support" and "experienced energy staff providing free project management assistance."

This paper reviews both financial and non-financial support currently available to Vermont towns, cities and gores. It also presents the lessons learned by eight other states that have implemented programs to better support local entities in undertaking and financing clean energy projects. These eight states have undertaken a variety of approaches, from providing technical assistance regarding an Energy Service Performance Contract to providing free initial audits and assisting in obtaining financing. Each state has identified unique challenges and continuously modifies and improves upon the support structures offered to local governmental entities. In reviewing the lessons learned by these states, Vermont can select and utilize the tools most likely to significantly assist towns and cities in completing and financing more energy projects, thereby saving all Vermonters money and energy while also potentially improving the comfort of our buildings and the health of our public.

30 V.S.A. § 202a: State energy policy

It is the general policy of the State of Vermont:

(1) To assure, to the greatest extent practicable, that Vermont can meet its energy service needs in a manner that is adequate, reliable, secure, and sustainable; that assures affordability and encourages the State's economic vitality, the efficient use of energy resources, and cost-effective demand-side management; and that is environmentally sound.

(2) To identify and evaluate, on an ongoing basis, resources that will meet Vermont's energy service needs in accordance with the principles of least-cost integrated planning; including efficiency, conservation, and load management alternatives, wise use of renewable resources, and environmentally sound energy supply.

¹ <https://www.efficiencyvermont.com/>

II. Report purpose and context

Vermont has many significant energy-related goals and statutory requirements.² However, the state has limited resources to directly fund the achievement of these goals and requirements. As a result, several stakeholders and analyses have questioned the role that financing can play in this transition:

- What is the role of financing in supporting clean energy projects?
- What is the current status of clean energy financing in Vermont?
- Can financing do *more* to assist in the transition to clean energy?
- If yes, what?

Therefore, in 2017, the Clean Energy Development Fund (CEDF) embarked upon an endeavor to better understand the Vermont clean energy finance marketplace and how financing could assist the Green Mountain State in achieving its many energy-related goals and requirements. The first Vermont Clean Energy Finance Report was completed in 2018.³ It sought to:

- Articulate financing's role in the clean energy transition;
- Establish a market snapshot of homeowner, business owner, contractor/installer and lender perspectives on clean energy financing products through surveys and interviews;
- Provide an overview of clean energy financing products currently available in Vermont;
- Assess where gaps and barriers might exist by comparing survey results to available products;
- Present examples of programs and offerings that might assist in addressing gaps and barriers in the Vermont clean energy finance market; and,
- Identify additional areas for further research.

As articulated in the 2018 Report, the 2019 and 2020 reports are meant to build upon the research conducted in the previous year, perhaps repeating surveys to assess trends or perhaps delving into greater depth in specific market segments and product offerings: "The specific focus for future reports will depend on the interest of the Vermont Clean Energy Development Fund, Department of Public Service and other interested stakeholders."⁴

The 2018 surveys and interviews implied that the financing marketplace does not shift significantly from one year to the next. For example, lenders stated that it takes time to identify, develop and implement financing products and therefore it is unlikely that there are new products to report. Similarly, homeowners and business owners stated that they do not necessarily complete projects on a yearly basis but rather over several years.

² 10 VSA §581 (to substantially improve 25% of the Vermont housing stock by 2020; to reduce total fossil fuel consumption from buildings by 10% by 2020, and other goals); 10 VSA §578 (reduce greenhouse gas emissions 75% from 1990 baseline, by 2028); 30 VSA §8002-8005 (75% of retail electric sales from renewables by 2032; 10% of annual retail sales from new renewables under 5MW by 2032; 12% of retail sales of 2032 retail sales must be from new distributed renewables or from fossil-fuel savings).

³ The 2018 Vermont Clean Energy Finance Report is available at:
https://publicservice.vermont.gov/sites/dps/files/documents/Renewable_Energy/CEDF/Reports/Vt._Clean_Energy_Finance_Report_2018.pdf

⁴ Stebbins, G., Bergan, E., Kramer, C. Clean Energy Finance Report. 2018. Prepared by Energy Futures Group on behalf of the Vermont Clean Energy Development Fund at the Department of Public Service. P. 8

Therefore, rather than research and report on essentially the same topic areas resulting in similar findings as achieved in 2018, the 2019 report focuses on the 2018 recommendation to conduct “further research as to the potential to expand the Vermont Buildings and General Services ‘State Energy Management Program’ to provide technical support” to municipalities, including holding “further discussions with state energy offices that have successfully provided technical assistance” to municipalities.

As such, this report:

1. Provides an overview of the financial offerings and tools currently available to towns and cities in Vermont
2. Presents data showing projects that are being completed in Vermont by towns and cities
3. Provides results from a Vermont League of Cities and Towns 2019 survey focused on energy issues
4. Provides findings regarding how other jurisdictions provide support to towns and cities
5. Summarizes potential opportunities for the State of Vermont to assist Vermont towns and cities in completing more energy-related projects

When considering how best to assist towns and cities in financing clean energy projects, it remains critical to keep in mind (1) the multiple barriers that exist in completing energy projects and (2) that financing can only do so much. Barriers include: the project cost; confusion as to how best to proceed with a project; project complexity; workforce challenges; uncertainty that the savings will materialize; challenges in accessing financing on terms that decision makers will support; debt aversion; and preference to invest in other priorities.⁵ Many of these barriers can be addressed through a range of complementary program strategies. As shown in Figure 1, financing is one of several linked strategies to drive and enable customer demand for energy efficiency as well as renewables and electrified transportation.

What is meant by “**Clean Energy Project**”?

Because this report focuses on learning more about the role financial products play in assisting Vermonters with clean energy projects, only projects that may require financing were covered in the surveys.

For example:

- The purchase of a renewable generating system (e.g. solar array)
- A building retrofit that includes air sealing, insulation and/or duct sealing
- An upgrade to a more efficient heating system, a purchase of a renewable heating system such as a pellet boiler, or the installation of a heat pump
- The installation of more efficient windows (lower U value) and doors (with a weather strip)
- The installation or replacement of a water heater
- The installation or replacement of more efficient commercial kitchen equipment
- The installation or replacement of an efficient washing machine, dryer or dishwasher
- Upgrades to motors, manufacturing equipment and system designs, and more efficient heavy machinery
- The purchase of an electric vehicle or installation of an electric vehicle charging station

⁵ Golove, W., Eto, J. “Market Barriers to Energy Efficiency: A Critical Reappraisal of the Rationale for Public Policies to Promote Energy Efficiency.” 1996. Berkeley, Calif: Lawrence Berkeley National Laboratory, Energy and Environment Division. LBL-38059.

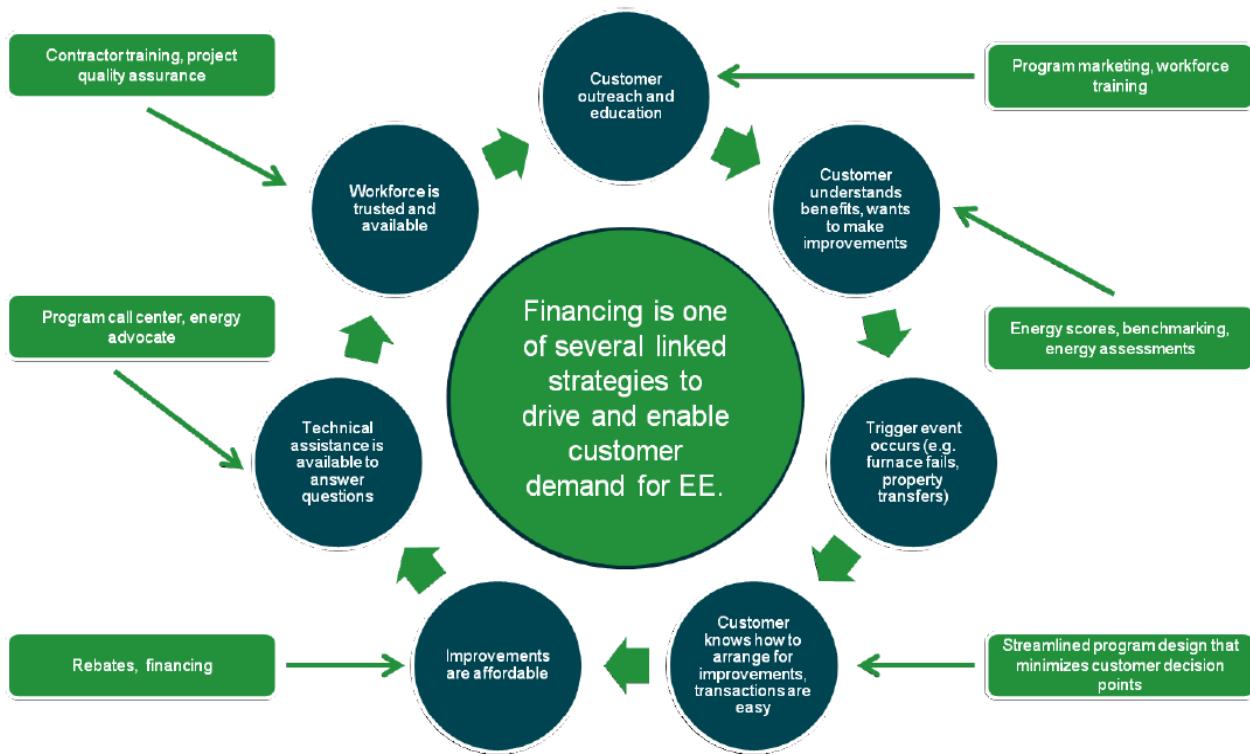


Figure 1. Strategies to drive and enable consumer demand. SEE Action 2013

Indeed, the experiences in other states confirm that financing is only one of several linked strategies to drive and enable clean energy projects in properties owned by local government. The remainder of this report shows which of the above strategies are available in Vermont, presents available data detailing projects that *are* being done by towns and cities, offers findings from an energy survey sent to Vermont municipalities, documents “lessons learned” from other states providing energy-related project support to local entities, and summarizes potential opportunities for Vermont.

III. Overview of offerings and tools currently available to Towns and Cities in Vermont

As shown in Table 1 below, there are a variety of financing products available for municipalities to complete energy efficiency and renewable energy projects. This table does not show incentive and rebate programs available for towns and cities, as these are not considered financing.

Vermont Clean Energy Financing Products Available for Municipalities		
Provider of Product	Examples of Products	Detailed Description
Municipal	Municipal Revolving Loan Funds	Some towns operate or contract to others for operations of revolving funds that can be used for infrastructure including energy upgrades. The City of Montpelier is the first to undertake this initiative in Vermont specifically for clean energy.
State	Vermont Municipal Bond Bank (VMBB)	Provides support for municipalities to issue tax-exempt bonds including those that support renewable energy and energy efficiency projects.
	VEDA: Electric Vehicle Charging Station Loan Program	Funded through the State Infrastructure Bank with Vermont Agency of Transportation and the Federal Highway Administration. Up to \$100,000 for purchase/installation of electric vehicle charging stations that are available for public use. 1% fixed rate, term dependent on useful life of asset; 2% commitment fee.
Private Finance Tools	Municipal Leasing and Lease Purchase Financing	Allows units of government to obtain energy upgrades with less cost than other financing options; terms vary 2-20 years; build equity and own at the end of term. The most common mechanism is a municipal tax exempt lease purchase agreement.
	Energy Performance Contracting via Energy Service Companies (ESCOs)	ESCOs are a type of company that typically combines an energy savings guarantee with a lease or bond to provide an Energy Performance Contract to suit the needs of the city or town. Usually there is a price floor for entry.
Federal Government	United States Department of Agriculture Rural Development: Community Facilities Direct Loan Program	Low interest direct loans (below 4% for Q2 2018) for up to 100% of the project cost for facilities that provide "an essential community service" such as local government services (libraries, cultural facilities) and educational services. Term is "up to the useful life of the asset" (up to 30 years).

Table 1. Financial offerings currently available to municipalities

Vermont towns and cities vary by geography, density, resources and infrastructure. While some may have strong credit and an individual or team of employees managing the community buildings, others may have no staff whatsoever and minimal or poor credit. Further, their needs for energy upgrades vary widely: some may have multiple buildings and generation facilities while others have none.

Access to capital frequently relies on the use of bonds, and therefore may require greater planning, community outreach to develop support for the bond, and prioritization of one bond request over another. For this reason, other models have been developed to provide capital to towns and cities. This includes revolving loans, energy service performance contracts and lease purchase financing. These will be discussed in the order provided in Table 1 above.

i. Municipal Revolving Loan Funds

Municipalities may be able to access financing through self-managed revolving loan funds. As shown in Table 1 above, support for developing self-managed revolving loan funds is available for many organizations within the institutional sector by the Sustainable Endowments Institute. This national non-profit provides assistance to hospitals, non-profits and government entities, with the City of Montpelier being the first municipality in Vermont to utilize this service. Montpelier's "Net Zero Revolving Loan Fund" was established by the Montpelier City Council in 2016 with the purpose of financing municipal energy

What is meant by a "Finance Product"?

- A bond
- A lease
- A loan
- A credit card purchase
- A payment plan

Direct incentives, subsidies or rebates are not a form of financing; they are a form of funding.

There are a range of complementary tools frequently associated with finance products. These include credit enhancements such as loss reserves, interest rate buy downs, guarantees, debt service reserves and others.

efficiency and renewable energy investments in the City. The Fund, currently capitalized at \$30,000, is administered by City staff with the support of the Montpelier Energy Advisory Committee (MEAC), which is tasked with spearheading the city's Net Zero Montpelier initiative. The purpose of the Net Zero Revolving Loan Fund is to capture and track savings from sustainability projects and to utilize part of those savings for subsequent projects. In addition to funding stand-alone energy efficiency and renewable energy projects, the City can also use the fund to pay the marginal costs of efficiency improvements within larger capital projects.

The first project funded was a capacitor at the Water Treatment Plant. This \$2,700 investment saves the plant approximately \$100/month in peak demand charges, resulting in a payback period of about two years. To identify other projects, MEAC requested funding from City Council to complete energy audits of the six main municipal buildings: City Hall, Police Station, Fire Station, Water Treatment Plant, Water Resource Recovery Facility, and Department of Public Works, followed by posting a Request for Proposals (RFP) for Level 2 audits of these buildings with audits completed in the Fall of 2017. Once the audit report was received, MEAC members met one-on-one with building operators to review the recommendations from the audits and identify projects with short paybacks that would be appropriate for funding with the revolving loan funds.

The full list of "recommended measures" from the audits included over \$400,000 of projects—far beyond the capacity of the Fund. Therefore, the focus has been on selecting projects that are fairly straightforward to implement, would not occur without this source of funding, and have a payback of less than four years. Additional scoping of projects is underway; for example, to complete weatherization and efficiency work identified in the audit report. All projects are tracked through the Green Revolving Investment Tracking System (GRITS), a web-based project management platform designed to assist institutions in tracking and analyzing aggregate and project -level energy, financial and carbon savings data.⁶ When asked about the process to set this up, one individual associated with MEAC stated: "My biggest takeaway is that the funding part is relatively easy, it is developing the projects, getting quotes, and getting them done (project management) that is really the heavy lifting."⁷

ii. Vermont Municipal Bond Bank

Municipalities may also take advantage of bonds through the Vermont Municipal Bond Bank (the "Bond Bank"). The Bond Bank is an instrumentality of the State administered by a board of directors including the State Treasurer and appointees of the Governor. Established in 1970, the Bond Bank has a mandate to provide municipalities with access to municipal bond proceeds at the lowest possible cost. The Bond

⁶ For more information regarding GRITS and the Montpelier Revolving Loan Fund, visit: <http://greenbillion.org/grits/>, <https://static1.squarespace.com/static/5ab8286bb40b9d253362f04e/t/5b4211ff575d1f7f898d95bb/1531056640952/MontpelierNetZeroRevolvingLoanFundGuidelines.pdf>, <https://static1.squarespace.com/static/5ab8286bb40b9d253362f04e/t/5b42122b6d2a73e49d6b3497/1531056684697/Net+Zero+Revolving+Loan+Fund+Application.docx.pdf>, <https://static1.squarespace.com/static/5ab8286bb40b9d253362f04e/t/5b42128c758d46ed5f2f2f51/1531056782396/Proposal+for+Revolving+Loan+Fund+3.0.pdf>

⁷ Author's e-mail communication with Kate Stephenson. May 4, 2019.

Bank also supports implementation of the State Revolving Fund that provides loans and grants to municipalities for water, wastewater and storm water projects.⁸

Like many lenders, historically the Bond Bank did not specifically track whether a large project included clean energy components. However, in 2017, the Bond Bank issued its first Green Bond, which expanded the traditional investor base to double and triple bottom line investors interested in environmental and social returns as well as financial returns.

The Bond Bank's 2018 Annual Report states that, as of the end of 2018, the Bond Bank's entire portfolio consisted of 490 loans with a total outstanding balance of \$548 million across 218 borrowers. Over the course of 2018, the Bond Bank loaned \$40.4 million for new projects within the pooled loan program. This included 23 loans with a median size of \$1 million.

An interview with the Bond Bank's Executive Director highlighted that energy-saving upgrades occurred during new construction or retrofit projects but that these savings may not necessarily be tracked. However, loans associated with projects that were focused on energy efficiency and renewable energy resulted in 47,000 MWh of production and 280,000 KWh annual savings. These savings and generation result from two hydroelectric projects and an energy efficiency project at a school.⁹ The Bond Bank does currently have the potential to provide more support for municipal clean energy projects.¹⁰

iii. Vermont Economic Development Authority and Vermont State Infrastructure Bank

The Vermont Economic Development Authority (VEDA) and the Vermont State Infrastructure Bank (SIB) currently offer a financing product available to municipalities to assist in the purchase and installation of electric vehicle charging stations that are made available for public use. Statutorily, it appears that VEDA's Commercial Energy Loan Program may also be available to towns and cities although this product, according to VEDA, has not been utilized thus far by local entities.

iv. Municipal Leasing and Lease Purchase Financing

From the private finance market, municipalities are also able to take advantage of lease financing for energy efficiency and renewable energy (subject to annual appropriations) and through contracts with an energy service company. Further, many towns and cities have signed agreements with third parties to install solar on their land or buildings. While generally little of this is tracked and recorded in a comprehensive manner, discrete data sets are available from some entities. For example, during the period of 2006-2018, the Grand Isle-based Municipal Leasing Consultants (MLC) provided a total of \$14,520,531 to twenty-two Vermont local government entities for clean energy projects specifically. Project types run the gamut from lighting upgrades to heating and ventilation improvements to solar and wood pellet boiler installations.¹¹ While data such as this does not allow for a complete picture of

⁸ The Bond Bank co-manages the State Revolving Fund with the Vermont Department of Environmental Conservation using appropriations from the United States Environmental Protection Agency and the State of Vermont.

⁹ Data provided to the author via e-mail on March 5, 2019 and available at: https://legislature.vermont.gov/assets/Legislative-Reports/VMBB_2018AnnualReport_LowRes.pdf

¹⁰ VT towns must take a town-wide vote to approve a bond, which can pose a barrier. Other financing structures, such as leases in which repayments are only made each year if annual appropriations are approved, do not require a town-wide vote of approval up-front and therefore may be easier to complete.

¹¹ Data provided by MLC, June 2018.

clean energy financing in Vermont, it does indicate that financing is occurring and provides a glimpse into the size and type of projects that are being completed.

v. Energy Service Companies and Energy Service Performance Contracts

In many other states, energy service companies (ESCOs) are the primary market actor that provides the majority of support to municipalities in completing industrial grade energy audits, savings analyses, construction of the project, measurement and verification of the savings and financing for those savings. While ESCOs have done some work in Vermont, their presence does not appear to be as significant as in other states. This is likely due to a combination of factors including the ESCO business model, the small size and older stock of Vermont's buildings and Vermont's rural, dispersed development patterns. In sum, it appears that many of Vermont's projects may not provide the overall project size needed for ESCOs to realize their needed profit margin. However, because many of the other states interviewed for this report do rely on ESCOs to complete municipal projects, greater detail regarding the ESCO structure is provided in this section.

An ESCO is a commercial business that develops, installs, and provides financial assistance for projects designed to improve energy efficiency and maintenance costs for facilities using an energy services performance contract (ESPC). ESCOs act as the project developers for a wide range of tasks and assume the technical and performance risk associated with the project. ESCOs can provide services to both public and private sector clients. All 50 states, including Puerto Rico and Washington, D.C. have statutes allowing companies to offer ESPCs.¹²

Typical tasks performed by an ESCO include the following:

- Develop, design, and arrange financing for energy efficiency projects
- Install and maintain the energy efficient equipment involved
- Measure, monitor, and verify the project's energy savings
- Assume the risk that the project will save the amount of energy guaranteed

Meanwhile, the energy service performance contract (ESPC) is the performance-based contract between the public entity and a qualified energy services company. Principle to the agreement is a written "guarantee" from the ESCO providing that annual utility, operational, and maintenance cost-savings generated during the term of the guaranteed energy savings agreement will meet or exceed the annual payments due under the finance agreement. In the event the "guaranteed" savings are not achieved during any year of the agreement, the ESCO is required to reimburse the public entity for the guarantee shortfall. To achieve the "guaranteed" savings, the ESCO assumes the construction and on-going performance risk of the project.

Over the term of an ESPC, the accumulated savings resulting from decreased energy, operational and maintenance costs are used to pay for all project and financing costs including; design, bidding, equipment procurement and installation, commissioning, measurement and verification monitoring, and related project finance costs. Projects are generally structured so that the savings equal or exceed all project costs. Savings in excess of the "guarantee" are immediately accrued by the public entity in the form of reduced utility and operational costs.

¹² For a complete list of statutes, visit <http://www.ncsl.org/research/energy/state-energy-savings-performance-contracting.aspx>

The ESCO serves as the single point of accountability for the public entity throughout the agreements: auditing, design, construction, commissioning, and performance periods.

Typical energy conservation opportunities within an ESPC include:

- Architectural /Structural – roofing, doors, insulation, weather-stripping, window treatment
- Electrical – lighting retrofits, emergency power, power and distribution, IT/communications networks, life safety systems
- Mechanical – HVAC systems, plumbing and drainage, energy management and building controls
- Property/Site – underground utilities, lighting improvements, swimming pools, ice arenas
- Renewable Energy – photovoltaic (PV) solar, thermal solar, wind, biomass, hydroelectric
- Water and Waste – water purification systems, water sewage facilities, landfill gas capturing, waste utilization
- Operational Best Practices – staff training and development programs associated with energy conservation

“Guarantees” associated with an ESPC include:

- Guaranteed Project Installation Costs
- Guaranteed Energy and Financial Savings
- Guaranteed Equipment Performance

Advantages of an ESPC include:

- Single point of accountability – the ESCO
- Transfers the “risk” of both construction and long-term savings to the ESCO through a performance “guarantee”
- Provides budget neutral financings, no direct impact on taxpayers
- Utilizes best value procurement practices
- Annual energy savings are monitored and verified by the ESCO

Disadvantages of an ESPC:

- May not incorporate “deeper” energy efficiency measures (such as air sealing or insulation) due to the longer payback period
- Frequently requires projects to be ~\$1 million (can be \$500,000, but lower than \$500,000 is challenging) in size to ensure the profit-margin is compelling for the ESCO
- Fees associated with the ESCO business model may be significant and jeopardize the viability of the project
- The ESPC/ESCO business model does not, in and of itself, include a “neutral, third-party” reviewer with expertise in energy efficiency. While the guarantee is meant to provide some measure of certainty in the project results, the initial design of the evaluation, verification and measurement (EMV) plan and the presentation of the data in the subsequent EMV reports, still requires an understanding of energy efficiency to assess the accuracy of the energy savings.

Section VI of this report will highlight the results from interviews with project managers providing ESCO-related support to local entities in other states. The interviews provide greater depth and context to the above-mentioned benefits and shortcomings to the ESCO model.

vi. Public Purpose Energy Service Companies: “Commons Energy”

In recognition of the challenges experienced by non-profit and governmental entities in completing energy upgrades, the Vermont Energy Investment Corporation developed “Commons Energy, LLC”. Since 2014, Commons Energy has aggregated funds from a variety of foundations to provide the capital to underwrite loans for buildings providing “public purpose” roles. While buildings owned by towns and cities are included in this category, the vast majority of the larger, more substantial projects involved multi-family affordable housing rather than locally-owned structures. It is thought that the reason for this is due to the availability of municipal bonds offering slightly more competitive rates (and longer terms) than offered by Commons Energy. More details about program results and lessons learned will be available soon in the form of a white paper.

vii. United States Department of Agriculture Rural Development (USDA-RD) “Community Facilities Direct Loan Program”

The last financing product presented in Table 1 above is the Community Facilities Direct Loan Program, provided by United States Department of Agriculture Rural Development (USDA-RD). This program provides affordable financing to develop essential community facilities in rural areas (e.g. town halls, community centers, fire departments, police stations, public fleets). This loan may be combined with a grant from this same program and also with commercial loan products. Loan repayment terms may not be longer than the useful life of the facility, state statutes, the applicant’s authority, or a maximum of 40 years, whichever is less. The interest rates are set by Rural Development (determined by the median household income of the service area) and are fixed for the entire term of the loan with no pre-payment penalties.

viii. Other Resources Available to Vermont Municipalities

As mentioned in Figure 1, financing is only one piece of the puzzle. While not financing related, per se, there are other “tools” available to Vermont municipalities to assist in completing energy projects.

These include the Vermont Energy and Climate Action Network—a network of over 100 Vermont town energy committees and the organizations that support them. Town energy committees frequently assist in developing municipal energy plans, identifying local energy priorities and, depending on the capacity of the committee and volunteers, implementing specific projects and activities. While VECAN and its members are a critical component to the Vermont energy landscape, it should be recognized that the volunteers are typically unpaid and therefore may not be able to provide the same type of project management role that might be conducted by a paid, dedicated town employee.

Other helpful resources for municipalities include the distribution and energy efficiency utilities. For example, Vermont’s Renewable Energy Standard (RES) requires distribution utilities to cost-effectively assist their customers and members in shifting away from fossil fuels towards strategic electrification.¹³ Meanwhile, Vermont’s energy efficiency utilities (Vermont Gas, Burlington Electric Department and Efficiency Vermont) also assist Vermonters in completing energy efficiency projects. All of these entities have developed and implemented energy-related programs.

The next section provides a snapshot of the work that has been completed by Vermont towns and cities with support from Efficiency Vermont. Certainly, efficiency services have been provided by the Burlington Electric Department and by Vermont Gas (for the City of Burlington, and for local

¹³ 30 V.S.A. 8005(a)(1)(C) and <https://publicservice.vermont.gov/content/tier-iii-renewable-energy-standard>

governments within the Vermont Gas territory, respectively), and all of the distribution utilities are providing various services through “Tier Three” of the RES. However, because the vast majority of Vermont towns and cities are serviced by Efficiency Vermont, and because there are only a few years of data showcasing Tier Three results, the next section focuses on work completed by Vermont municipalities that have been serviced by Efficiency Vermont.

IV. A Snapshot of Work Completed by Vermont Municipalities within Efficiency Vermont territory

As provided by Efficiency Vermont and shown in Figure 2, Figure 3, Figure 4, and Figure 5 below, Vermont towns and cities are, indeed, completing projects.¹⁴ As shown in Figure 2 and Figure 3 below, from 2003 – 2018, Efficiency Vermont completed more than 1,600 projects with municipalities (this does not include the 2,000+ projects completed for K-12 schools). Seventy-four percent of the projects were lighting improvements, with industrial improvements next at 7%, with “audit/weatherization/design assistance” and “new construction” projects next, each at 6% of the project type. Regarding what type of facilities received energy upgrades, 27% were “Other Town” facilities such as a town office or administration building that had a unique name or outdoor walkways, or a park facility. “Water and Wastewater” facilities and “Fire and Emergency” facilities both made up 16% of the building types that were serviced. Streetlighting followed at 11%, with all other facilities (town offices, garages and sheds, community buildings and libraries, and police stations) at less than 10%.

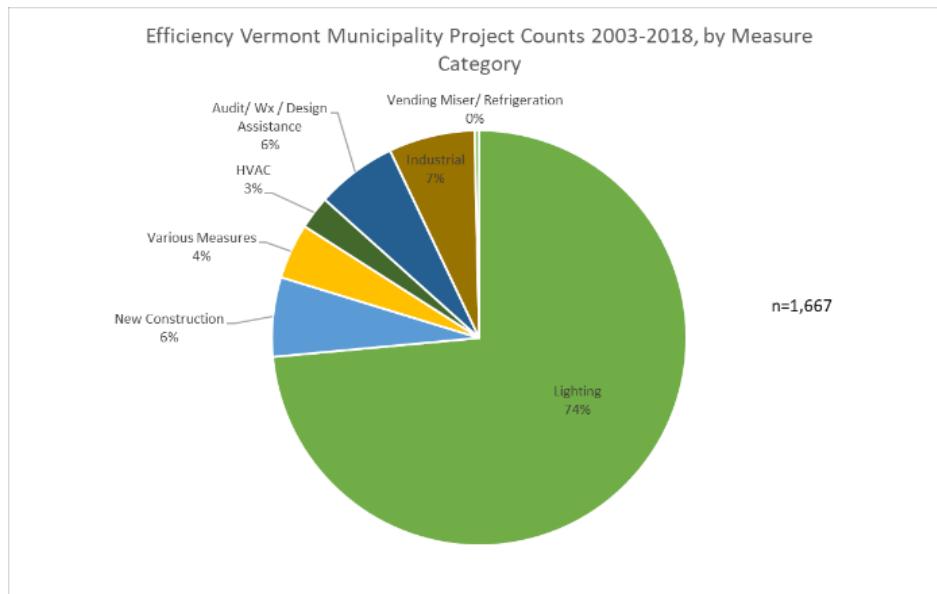


Figure 2. Efficiency Vermont Municipality Project Counts 2003-2018, by Measure Category

¹⁴ The data provided by Efficiency Vermont should be considered to be indicative. Specifically, the “other facility” and “various measures” categories are not typically Efficiency Vermont data categories. Rather, they were provided to the author to provide a high-level overview of the type, location and first-year savings of efficiency measures conducted by municipalities receiving Efficiency Vermont support. Additionally, while the data was provided by Efficiency Vermont, the charts were developed by EFG.

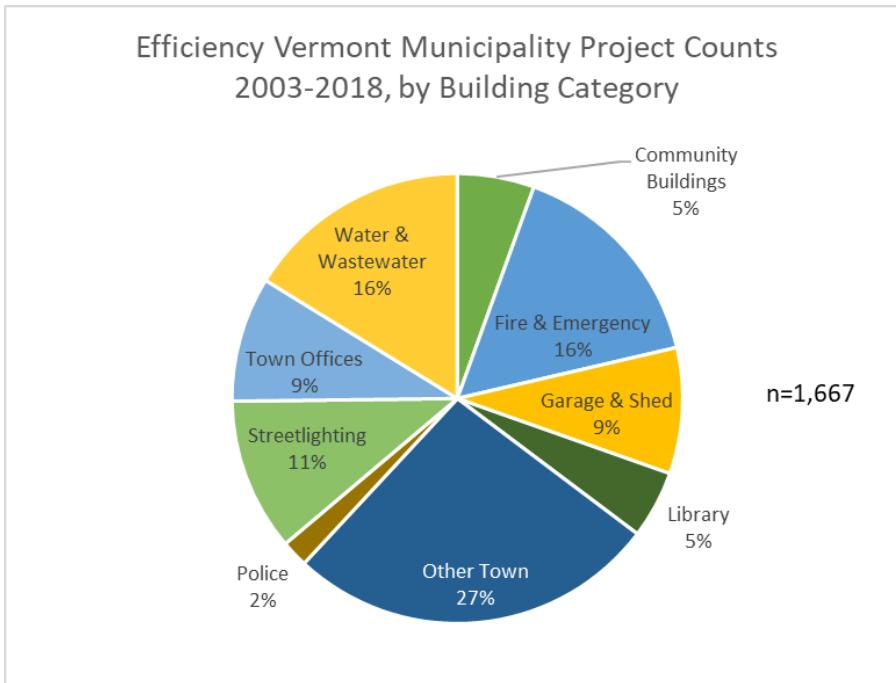


Figure 3. Efficiency Vermont Municipality Project Counts 2003-2018, by Building Category

Figure 4 and Figure 5 below reveal the energy saved by project and building type. In terms of energy saved in the first year of the project (megawatt hour, net, rounded, for electricity only), lighting again dominated at 47%, followed by industrial projects at 21%, new construction at 17% and remaining project types were under 10% (HVAC, audit/weatherization/design assistance, vending miser/refrigeration). Meanwhile, water and wastewater buildings dominated the energy savings at 40%, followed by streetlighting savings at 31%, other town buildings at 13%, and all remaining building types at less than 10%.

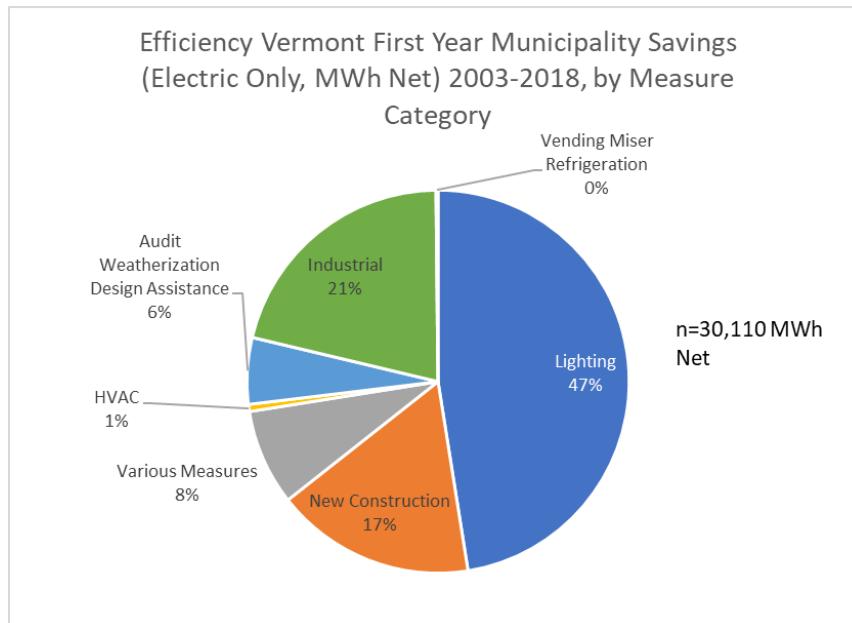


Figure 4. Efficiency Vermont First Year Municipality Savings (Electric Only, MWh Net) 2003-2018, by Measure Category

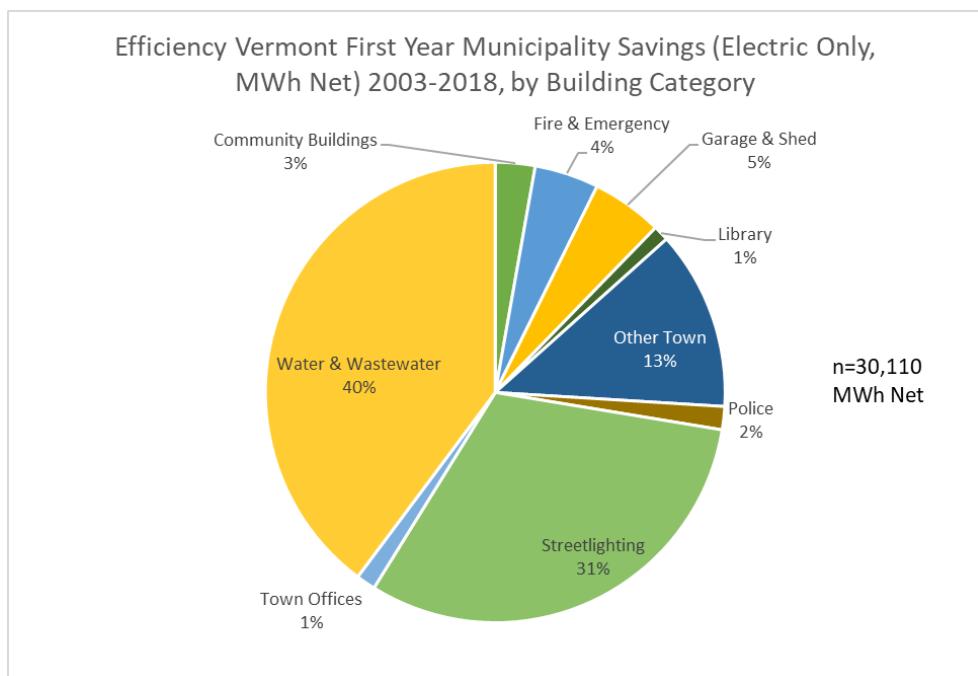


Figure 5. Efficiency Vermont First Year Municipality Savings (Electric Only, MWh Net) 2003-2018, by Building Category

Clearly, Vermont towns and cities *are* completing energy projects. What remains unclear, overall, is whether this represents *all* that is being done, since perhaps not all work is going through Efficiency Vermont and therefore being captured by the Efficiency Vermont reporting structure. If it does not represent all that is being done, then the next questions are, what *more* is being done, and whether more could be done if additional support were available. And, if the answer to this last question is yes, then *which type of support would be most helpful to municipalities* is the final, critical question.

V. Results of the Vermont League of Cities and Towns “2019 Municipal Energy Needs and Usage Survey”

During the months of March and April of 2019, the Energy Action Network conducted the “2019 Municipal Energy Survey” on behalf of the Vermont League of Cities and Towns. Of the State’s 255 municipalities (237 towns, nine cities, five unincorporated towns and four gores), 186 responded to the survey. This is representative of 74% of Vermont’s municipalities and accounts for 85.6 of Vermont’s population. The survey included two specific questions pertaining to the barriers faced by municipalities in completing energy upgrades in publicly-owned buildings.

Question Five asked: “What type of support would be most useful to advancing your town’s climate and energy goals? Please rank (1 star being of little assistance; 5 being essential to your efforts to meet state energy goals).” With the following six types of support provided as options:

- Financial Support
- Education workshops (energy efficiency, community engagement, etc.)
- Tracking Data (# of electric vehicles, # of homes weatherized, # of solar installations, etc.)
- Statewide Policy Support
- Networking opportunities with municipalities embarking on similar projects

- Experienced energy staff available to provide (free) project management assistance in completing energy improvements in locally-owned buildings?

As shown in Figure 6 below, of the six types of support offered, “financial support” received the greatest percentage of respondents stating that it would be essential to their efforts in meeting state energy goals. Specifically, out of 181 respondents, 116 (or 64%) felt financial support would be “essential”. The next type of support to receive the greatest percentage of respondents stating that it would be “essential” to meeting state energy goals, was “experienced energy staff available to provide ‘free’ project management assistance in completing energy improvements in locally-owned buildings” at 36%.

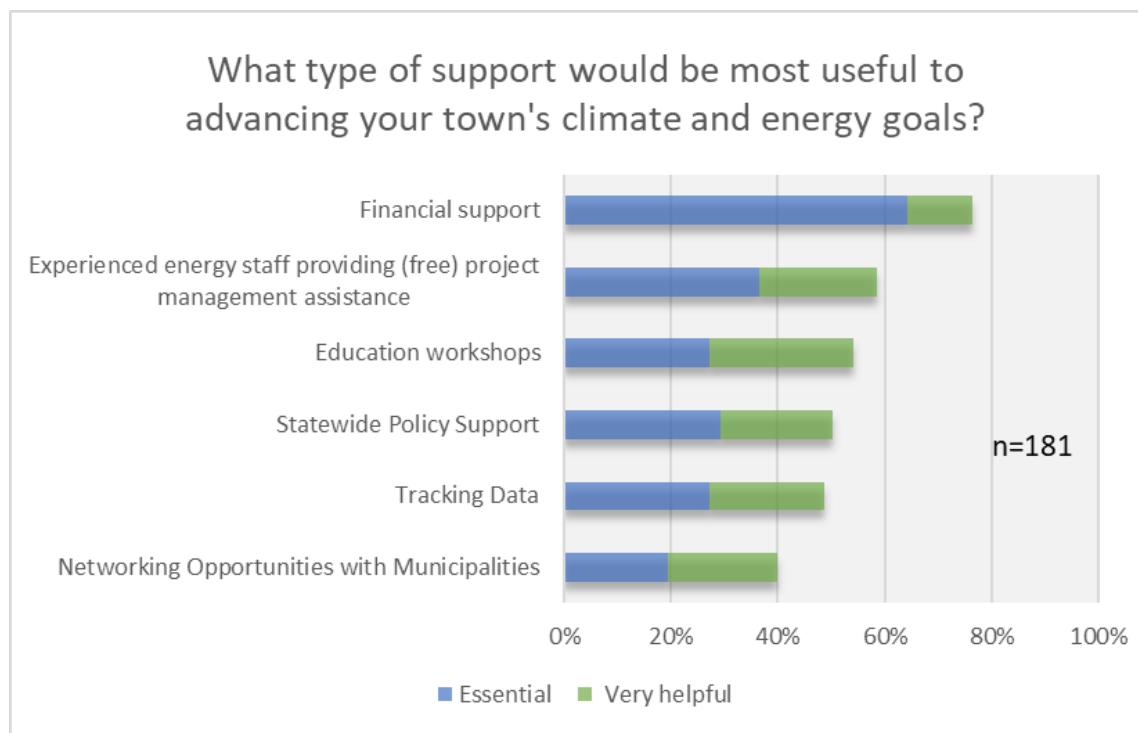


Figure 6. Type of Support Useful for Advancing Climate and Energy Goals

When combining the top two ratings for this question (“Essential” at #5 and “Very helpful” at #4), we find that more than 75% would find financial support essential and very helpful, with nearly 60% finding experienced energy staff (at no charge) next in line for being essential and very helpful. Networking opportunities received the least number of votes at 40%, with the remaining categories (educational workshops, statewide policy support, and tracking data) hovering in the 40% - 55% range.

Figure 7 below shows the results to the question: “If your municipality has looked into/wanted to complete an energy project in/on locally-owned properties, but ultimately did not complete the project, please choose the top three items that were the most challenging to overcome.” Seventy-two percent of the 57 respondents felt just “Getting started! Figuring out where to begin” was a barrier, followed by “Overall project management” at 44%, followed by “Obtaining financing such as bond approval” at 42%. Given how many respondents are struggling to “figure out where to begin”, it is perhaps not surprising

that “reviewing RFPs/vendors” did not receive many votes – perhaps many towns and cities have not yet had an occasion to review vendor qualifications for an energy project.

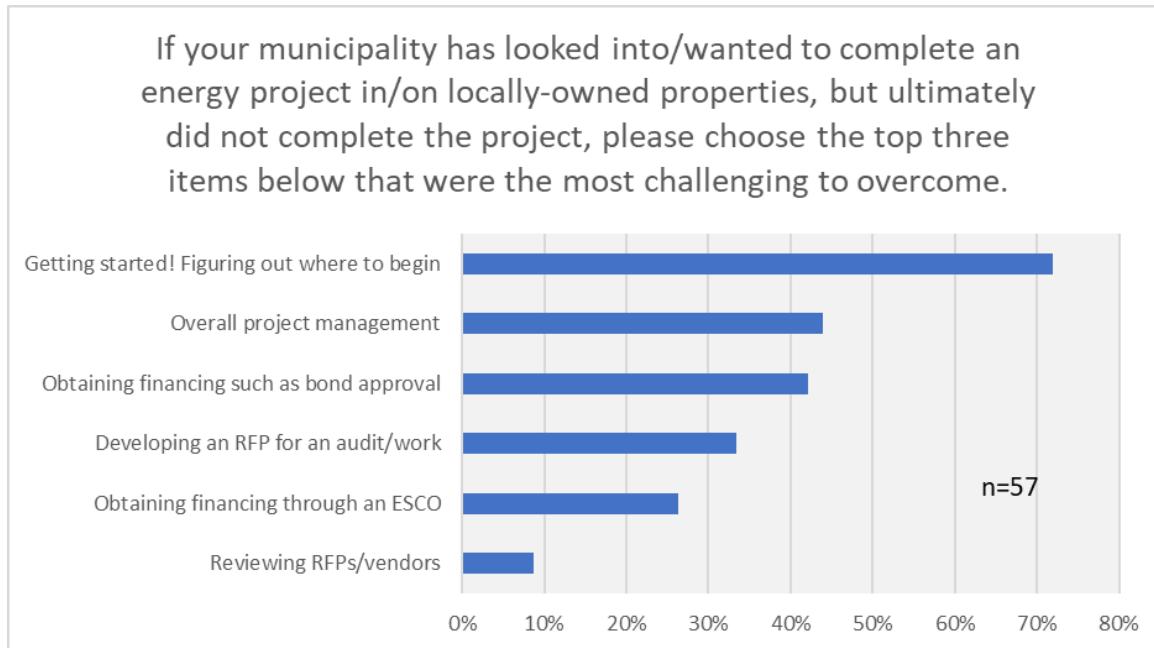


Figure 7. Top Hindrances to Completing Clean Energy Project

For the majority of the respondents, an experienced energy expert able to provide free support in starting and managing a project would be very helpful and for others, essential.

Figure 8, Figure 9, Figure 10, and Figure 11 show which of the actions towns say they have undertaken, which they have not, whether they would like help exploring the action, or whether they are unsure and do not know the answer. Aligned with the data obtained through Efficiency Vermont, replacing street lights with LEDs is the action undertaken the most (at 64%), followed by weatherizing town-owned buildings (50%), followed by upgrading a water or wastewater treatment plant (28%), with heating system improvements at 18%. The leading actions that towns would like help in exploring are weatherizing buildings (21%) and improving heating systems (20%).

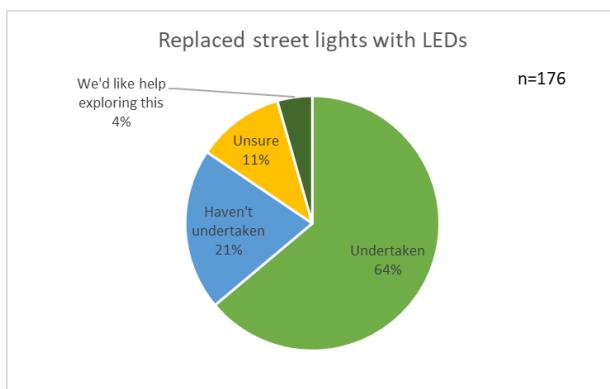


Figure 8. Replaced Street Lights with LEDs

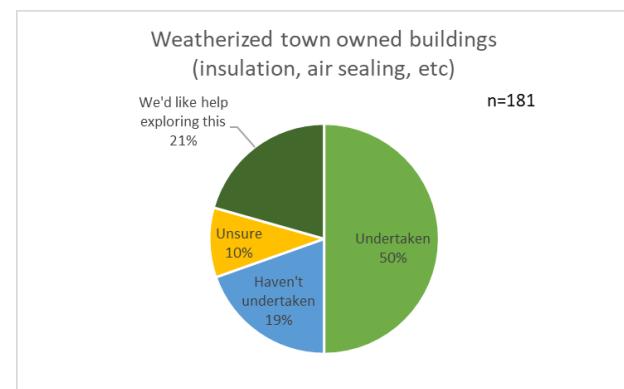


Figure 9. Weatherized Town Owned Buildings

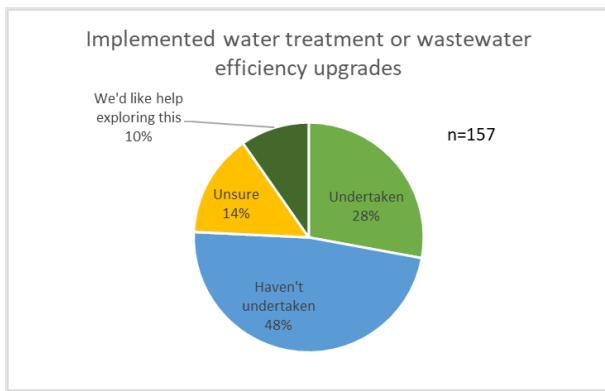


Figure 10. Implemented Water Treatment or Wastewater Efficiency Upgrades

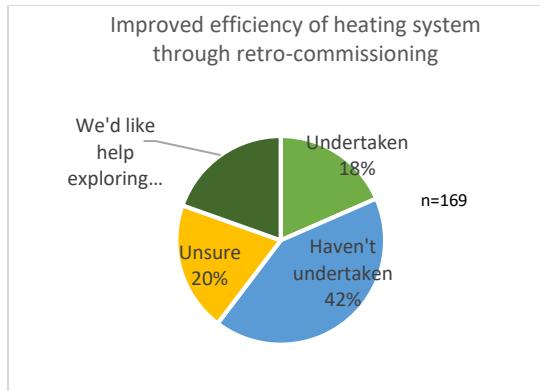


Figure 11. Improved Efficiency of Heating System Through Retro-Commissioning

Clearly, Vermont municipalities have some resources available and energy projects are being completed. However, it is also clear that more could be done, additional support would be valuable, and that whatever approach is taken must be targeted to meet the municipalities' needs and interests. The next section provides an overview of programs and offerings provided in other states to assist municipalities in completing clean energy projects.

VI. Review of Other State Programs

A number of states have grappled with how to provide greater support to towns and cities to complete more energy projects. This report reviewed and reached out to eleven states to learn more about the type of support offered and lessons learned. When possible, a program manager from the respective state was interviewed. Interviews were conducted with representatives from Colorado, Connecticut, Minnesota, New York, North Carolina, Rhode Island, Washington and Wisconsin. Municipalities in three states (Connecticut, New York and Rhode Island) can utilize the state "Green Bank" in partnership with other state entities to provide support to finance municipal clean energy projects. Municipalities in the remaining five states (Colorado, Minnesota, North Carolina, Washington and Wisconsin) utilize a variety of financing resources: in North Carolina the only effective option is ESCO financing while in other states a mix of state revolving loans, municipal lease financing, bonds and ESCO financing may be used.

Many of the states provide upfront assistance such as developing benchmarks for municipal buildings, pre-qualifying ESCOs, providing preliminary audits to target a specific building for an investment grade audit (IGA). States provide a variety of contract templates and technical resource documents, but the usefulness of these can depend on the statutory requirements pertaining to procurement and other project factors. Some state staff are paid for through the general budget while others charge a fee. However, it is critical to ensure that the fees do not jeopardize the project economics, particularly if there are fees from state staff, fees and overhead from the ESCOs and fees associated with financing. To address this challenge, some states use the Master Contract to place a cap on the fees and mark up that ESCOs may charge in the site-specific contract with the municipality.

It appears that all states, except for Washington, have struggled, at times, with funding state technical assistance programs. Perhaps related to this is the level of formality of the program design, with Washington appearing to have the most detailed program process. Depending on the administrative

structure of each state, different agencies and divisions may provide different roles such as the initial technical assistance, the review/approval of the ESPC and the financing.

The remainder of this section reviews the eleven interviewed states in alphabetical order. The states listed earlier include greater detail as to program design and specific templates available to the municipality to provide a grounding for the reader to compare and contrast different programs. Each state has a summary that, depending on the interview results, addresses the following items:

- Type of support provided
- Templates and agreements provided
- State program staffing level and payment structure
- Approach to marketing
- Financing mechanisms used by the municipalities
- General size of projects and use of bundling projects
- Depth of energy efficiency measures seen in projects
- Other

i. [Colorado Energy Office: Energy Performance Contracting Program](#)

The Colorado Energy Office (CEO) established its Energy Performance Contracting (EPC) program in the mid-1990s. Since then, 152 public jurisdictions have worked with an ESCO to identify nearly \$35 million in annual utility savings, which have been leveraged to attract \$574 million in capital construction funds. As of June 2018, 206 active and completed projects have improved the performance of a variety of public buildings and properties across 75% of Colorado's counties.

Facility improvements include lighting fixtures and controls (including street and traffic lighting), occupancy sensors, HVAC improvements, boiler replacements, pumps fans and drivers, equipment controls, operations and scheduling, envelope improvements, water efficiency measures and advanced water metering, fleet efficiency, and renewable energy installations.¹⁵

Colorado has designed its EPC program to be a smooth experience for public facility owners. Key program design elements include:

- **Standardized Contracts** – An ongoing collaboration between CEO, the Offices of the State Architect and Attorney General and the Colorado Chapter of the Energy Services Coalition to create standardized contracts, protocols, guidelines and processes
- **Pre-Qualification** – Working with the CEO and the Office of the State Architect to pre-qualify a pool of ESCOs, followed by contract execution with CEO to ensure each company adheres to statutory and regulatory requirements, industry standards and program standards for success
- **Free Coaching and Technical Assistance** – Providing no-cost technical and engineering services to the municipality by the CEO throughout the life cycle of the ESPC formalized by a non-binding Memorandum of Understanding (MOU) with the local entity

¹⁵ Fleet efficiency is enabled by statute, but CEO has not yet overseen a project of this nature; CEO expects this to shift in the near future.

CEO utilizes a five-step process, as follows:

1. **Get Organized** – Local entity defines goals, roles and responsibilities are clarified, MOU is formalized.
2. **Select a Pre-qualified ESCO** – Local entity hires one of the pre-qualified ESCOs with CEO providing support (but not making the selection) and ensuring open book pricing.¹⁶
3. **Get an Investment Grade Audit and EPC Project Proposal** – Multiple meetings between local entity and ESCO (with CEO assisting local entity) to review and agree on audit results, contract terms, project proposal and measurement and verification (M&V) plan. Standardized, state-approved templates are available for the audit report, contract, project scope proposal, EMV plan and state-approved financing bid template.
4. **Execute and Implement an Energy Performance Contract** – Upon local government approval, the ESPC is signed followed by the local entity seeking financing (ESCO helps identify opportunities, but like CEO, the “Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 limits the type of support the ESCO can provide).¹⁷ Once financing is secured, ESCO undertakes facility improvements. All parties attend a post-construction walkthrough of the facilities and if acceptable, a Notice of Completion is signed. ESCO provides the local entity and CEO a Post Implementation Report that documents as-built conditions and any changes to the energy savings guarantee.¹⁸
5. **Measurement and Verification of Guaranteed Savings** – ESCO provides M&V reports to town and CEO for three years (required by statute). CEO assists the local entity with an independent review of the EMV reports prior to the municipality accepting the report, with CEO providing trouble-shooting expertise as needed. CEO does not provide dispute resolution but can help assess the situation.

An interview with CEO staff resulted in the following comments:

- Support provided: While support is provided throughout the entire project (3+ years), staff does spend a significant amount of time “hand-holding” at the front end of the project phase. Providing the engineering and technical support is very helpful to smaller towns and cities; but these towns and cities often need support to understand financing options, also. “If the town has a real sharp chief executive officer or an experience with an EPC, sometimes they can do it on their own. But we have found that sometimes the town gets through the energy side and stops with the financing side.” With the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010, neither the CEO nor the ESCO can advise the town on financial decisions. If resources allow, CEO has thought about hiring an advisor on retainer for municipalities so that projects “don’t get delayed six to nine months to make everyone comfy with the contract language”.
- Templates and agreements: A number of templates are provided by the state, with an MOU securing the relationship between CEO and the local entity. The actual ESPC is signed between the local entity and the ESCO.
- Staffing level and payment structure: The program includes three staff – one full time manager who oversees ~70-110 projects at any given time and two part-time technical staff who are

¹⁶ If a competitive selection process is required, an RFP template is provided. If sole source procurement is an option and a preference for the facility owner, then modifications are made accordingly.

¹⁷ <https://fas.org/sgp/crs/misc/R41350.pdf>

¹⁸ Unique components of this step include the offering of an “EMV 101” training that describes EMV options and implications and CEO addressing potential future “what-if” scenarios.

engaged with 50-60 projects (each project is at least a ~4-year commitment). Staff are paid through the state budget.

- Marketing: The program manager is involved with more projects because this role also implements all marketing of the program. Marketing is targeted through 1-on-1 client meetings, partnerships, presentations at annual conferences, webinars, newsletter articles and other outreach channels.
- Financing: CEO has seen a mixture of financing approaches; towns have self-funded, mixed grants with a bond and with funding, or other combinations.
- Project size and bundling projects: “The \$500,000 threshold for ESCOs is real. Anything smaller than this is quite possibly too small for an EPC.” Bundling projects to surpass the \$500,000 threshold has only been done a few times; “It’s really about the ESCO’s appetite to do this work – the newer ESCOs seem more willing to try it.”
- Depth of projects: Deep, and also shallow, energy projects are undertaken with CEO support. CEO is “open” to “less deep” projects when an entity is still in a repayment period for a prior EPC and the opportunity cost is greater than the project cost.
- Other:
 - The ESCO/CEO relationship: CEO benefits from the ESCOs, and the ESCOs benefit from the CEO. Together they drive and support the EPC market. The ESCOs and their sales teams do a lot of marketing and outreach for the energy upgrades; CEO’s program provides support to the local entity. One example of a program design element that reflects this relationship is that the CEO does not require the local entity to go through an RFP process: “For a small town, getting 12 – 15 bids is a lot...and if the town has heard about ESPCs through a particular ESCO that actively went to the town...then it’s not helpful for CEO to then require hurdles for the town and the ESPC.”
 - CEO requires that ESCOs meet annual participation requirements in order to retain their pre-qualified status. There are currently 12 ESCOs on the list. Every year, an ESCO on the pre-qualified list must have an active contract, be in the first year of EMV, need to respond to half of the RFPs to which they have been invited to respond, or bring two potential clients to CEO. After the annual review, if there is insufficient participation, an ESCO might be issued a conditional renewal or might be removed from the program.
 - Unlike many other states interviewed for this report, Colorado has not yet seen a significant uptake in power purchase agreements, whereby the municipality buys the power from a renewable energy project.
 - Three key focal points for CEO staff:
 - Make sure that for every project, the client’s needs are being met; the client drives the original project intent, and then the ESCO may weigh in and partner with them to realize the savings.
 - The ESCO must meet the program terms in the state-approved contracts. While the client can make changes to these contracts, the ESCO cannot. This ability to change the contract can help the client feel less overwhelmed by “legalese”.
 - The project meets all statutory requirements, i.e. language such as “average weighted useful life”.

ii. Connecticut – Connecticut Department of Energy and Environmental Protection,
[Energize Connecticut and Connecticut Green Bank](#)

Energize Connecticut offers a variety of programs and support for municipalities including the turnkey Small Business Energy Advantage (SBEA) and Business Energy Advantage (BEA) programs, as well as support for municipalities interested in doing other energy efficiency projects from single measures to larger projects through an ESCP.

The SBEA program has been available for roughly fifteen years and involves a utility-authorized contractor performing a no-cost, no-obligation energy assessment of the facility followed by installation of the energy-savings measures. The utility Eversource pre-qualifies contractors (usually on a biennial basis) which includes agreements to use fixed prices on common measures such as lighting and refrigeration controls.

The BEA is a new (2019) program providing support to midscale projects, again with pre-qualified contractors but fixed pricing only for labor. The goal for this program is to identify and install deeper efficiency measures, requiring enough engineering that is not possible to have fixed pricing on the equipment.

For other projects, municipalities may also participate in the Energy Opportunities program which does not include pre-qualified contractors. This program involves utility program administrators working with the local municipality, and/or their preferred contractor, to identify potential equipment upgrades and agreeing to a project scope which, once executed, can then have the town's preferred contractor or staff install the equipment directly.

Within any of the programs, or for any combination of projects across programs, municipalities can access up to \$500,000 (soon expected to increase to \$1,000,000) to finance projects on their utility bill at a 0% interest rate for up to four years. The underwriting for the loans has essentially been “does the town pay their utility bill”. Capital for the financing is initially provided by the Connecticut Energy Efficiency Fund, though the loans are eventually sold to a partnership of the Connecticut Green Bank and Amalgamated Bank with the Connecticut Energy Efficiency Fund providing the loan loss reserve and IRB (although the loss rate is less than one percent).

In certain circumstances, municipalities may also receive support for technical assistance from the Connecticut Energy Efficiency Fund to support an owner's engineer if they undertake a project with an ESCO. Connecticut has developed pre-approved, standardized documents and processes that are available for use by municipalities. The Connecticut Department of Energy and Environmental Protection maintains a list of pre-qualified energy services providers. There are tax-exempt municipal lease and loan guidance documents and Green Bank staff can provide advice and support regarding financing options including making introductions to capital providers and financial institutions.

Besides the four program offerings described above, many towns and cities utilize the upstream incentive program, receiving discounts at the point of purchase for lights and other equipment; this is commonly done if installation of the energy saving measures is done by municipal staff. A “rough-cut” overview (provided via narrative interview) of how towns and cities utilize the above program offerings is provided in Table 2.

Program Name	Program Structure and Size of Project	Number of Projects/Year
SBEA	On-bill financing up to \$500k, 0% interest rate, 4-year term. Pre-qualified contractors with fixed prices. Buildings with less than 200 kW peak demand (e.g. an elementary school)	About 100 projects per year making up roughly 20% of municipal annual savings
BEA	On-bill financing up to \$500k, 0% interest rate, 4-year term. Pre-qualified contractors with fixed labor price. All buildings aggregated with peak demand 200-500 kW.	N/A, program just starting
Energy Opportunities	On-bill financing up to \$500k, 0% interest rate, 4-year term. Any contractor – variable sizes of projects.	150-200 projects per year from small and large ESCOs, providing roughly 60% of municipal annual savings
ESPC	\$2 to \$10 million usually financed through bond or Tax-Exempt Lease. Pre-qualified ESCOs with many templates available. Very large projects	“5-6” per year – within Energy Opportunities program
Upstream Purchases	Incentive or rebate is provided at point-of-sale. Balance of costs paid for through town capital budgets	“Thousands” per year and roughly 20% of municipal annual savings

Table 2. Connecticut Programs

During an interview with Connecticut utility staff, the following information was provided:

- Support provided: Support varies depending on the program
- Templates and agreements: Support varies depending on the program
- Staffing level and payment structure: Program administrators at the utility are paid for through the Efficiency Fund with DEEP staff paid for through the state budget
- Marketing: Varies. Some word-of-mouth, some ESCO-driven
- Financing: Support varies depending on the program. The Connecticut Green Bank (through partnership with Amalgamated Bank) provides the capital to purchase the SBEA loans, with the Connecticut Energy Efficiency Fund providing “behind the scenes support” by buying down the interest rate to 0%.
- Project size and bundling: See Table 2. Under the ESCP structure, projects are rarely less than \$1 million, with most ranging between \$2 to \$10 million. The Connecticut Green Bank explored bundling projects, but none appear to have occurred yet. The participating ESCOs were not that enthused with bundling as the process “rapidly becomes complex to sort out where the savings come from and how to allocate costs and savings, especially if there is a shortfall.”
- Depth of projects: Lighting is a core component, but there is still a good depth to the projects, often seeing “kitchen hood controls, personal computer power management, domestic hot water heaters, doors and windows, boilers and chillers”
- Other:
 - “Towns are really suspicious of the ESCP model. The guarantee doesn’t seem that important because I don’t think the towns believe the ESCOs will make the guarantee

- meaningful. Once you don't believe in the guarantee, you start to look harder at the mark-ups, which are significant. Though the projects we have seen seem to go ok.”¹⁹
- “The state templates for working with an ESCO are fantastic, but they are not typically used by municipalities. And, ESCOs would prefer to use their own contract.”
- “The ESPC model hasn't really worked in Connecticut for state buildings because the state ESPC program has not had dedicated funding.”
- “Who wouldn't take a 0%, \$500,000 loan that pays itself off? Plus, it's on the bill, so it's not really considered debt and there is no effort required to obtain bond approval.”

When asked “What was the level of effort and resources that were required to set up the on-bill component of these programs?” the answer was resounding: “A lot”. The Connecticut utilities were required to provide the on-bill payment mechanism by the legislature in 2006, when the utilities proposed a multi-million-dollar upgrade to their customer information system (CIS). The initial set up took between six-to-eight months and still requires one full-time employee to monitor the program overall (this is a separate role than the employees who process payments, send bills and close loans.) The interviewees did comment, however, that providing essentially the same financing product (a 0% rate “secured” by the simple measure of whether a municipality has historically paid its utility bills) via a separate bill (so, not technically, “on-bill”) witnessed the same level of customer interest and participation while requiring far less effort with regards to modifying the utilities data and billing systems.

Additional information including a variety of templates and guidance documents are available at the Energize Connecticut website.²⁰

iii. Minnesota Department of Commerce: “Guaranteed Energy Savings Program” and “Local Energy Efficiency Program”

Minnesota has a number of enabling statutes pertaining to “energy improvement financing” via an ESPC. These include statutes specific to state, municipal and local programs.²¹ The programs discussed below include:

- The Guaranteed Energy Savings Program (GESP) allows the Department of Commerce to provide assistance to any public entity (state, municipal and higher education) from project initiation through the M&V stage. However, GESP is currently unfunded and therefore not currently offered although the legislative language and programmatic structure remain in place.
- The Local Energy Efficiency Program (LEEP) allows the Department of Commerce to provide assistance to municipalities through the use of a fee up through the completion of an investment grade audit (IGA). This program is currently offered.

¹⁹ By “make the guarantee meaningful”, the interviewee means that the ESCO may provide a guarantee on paper, but if they shift the baseline or present the savings differently than the original estimated savings may not actually be achieved and yet still look reasonable in the energy savings report.

²⁰ https://www.energizect.com/your-town/solutions-list/microgrid_financing,
<https://www.energizect.com/your-town/solutions-list/performance-contracting>

²¹ This includes enabling statutes for Energy Savings Performance Contracting (ESPC) for state facilities (16C.144; Guaranteed Energy Savings Program), municipal facilities (471.345 Subd. 13; Energy Efficiency Projects), and schools (123B.65; Energy Efficiency Projects). “LEEP” as presented here, was previously called the Local Public Building Enhanced Energy Efficiency Program (PBEEEP) or Local PBEEEP. There is a similar program called State PBEEEP. Additional statutory references include 16B.322 and 216C.43.

GESP and the Minnesota Department of Commerce have provided technical, contractual and financial assistance to local government units and others. Assistance has included evaluating facilities for potential improvements, analyzing financing options, soliciting and awarding RFPs from pre-qualified ESCOs, evaluating the ESCO proposals, negotiating, awarding and overseeing ESPC project management, and overseeing the M&V plan. GESP prequalified and then executed a Master Contract with ESCOs with caps on the fees (determined by what the ESCOs submit in response to the Request for Qualifications). To win a specific project, pre-qualified ESCOs needed to respond (and be selected) to a site-specific RFP. "Cost and Pricing" weighs 30% of the score.

Besides the documents described above (Master Agreement, Site-Specific RFP), other critical documents for GESP include the Work Order Contract, the Work Order Contract Amendment, and the Work Order Contract Amendment Exhibits and Attachments. Each of these documents builds upon the previous document and acts as a "milestone" in the agreement process between the State, the ESCO and the local entity. The various documents articulate clear boundaries and divisions of roles and decisions. Exhibits and attachments include specifications regarding contractor duties, scope guidelines and requirements for the ESPC including contractor fees (with maximum mark-ups incorporated).

Similar to the steps outlined by the Colorado Energy Office above, the GESP project development process for public entities utilizes a four-step process:

1. **Opportunity Assessment Phase** – State and local entities review needs and goals, develop scope; local entity enters a "Joint Powers Agreement" with Department of Commerce to utilize the GESP Master Contract.
2. **Investigation Phase** – Site-Specific RFP is shared with pre-qualified ESCOs, Work Order Contract issued between local entity and ESCO to perform IGA and develop Project Proposal.
3. **Implementation Phase** – ESCO obtains quotes, public entity amends Work Order Contract to include Project Proposal and guaranteed maximum price and annual savings. Once Work Order Contract Amendment and Lease Purchase Agreement is approved, ESCO completes construction and commissioning work.
4. **Performance Phase** – M&V plan is implemented, reviewed, monitored. The public entity pays an annual fee to the ESCO for M&V Services. The Annual M&V Report is reviewed by the Department of Commerce.

Meanwhile, LEEP, also housed within the Minnesota Department of Commerce, assists local entities (only) in identifying cost-effective energy efficiency projects.²² LEEP, effectively, provides the first two stages of the GESP program: the Opportunity Assessment and Investigation stages. Unlike GESP, LEEP staff step aside once the IGA is completed, with the local entity completing contractor selection, contract negotiation, obtaining financing, construction and post-installation measurement and verification on their own accord. Similar to GESP, LEEP provides a master contract with pre-qualified engineering firms as well as other templates and program tools, and includes the following three steps:

1. Opportunity Assessment – similar to GESP.
2. Provider Selection – Site-Specific RFP is shared with pre-qualified ESCOs including a site walk-through. The local unit of government will notify the selected Contractor and encumber the funds necessary to move forward with an IGA.
3. Investigation – This step includes a Preliminary Assessment and Analysis followed by a Detailed Investment Grade Audit.

²² "Local entities" includes all public entities except state agencies; cities, counties, school districts and Indian Tribes. In contrast to LEEP, GESP *can* provide services to local *and* state agencies.

Once a final IGA is complete, a LEEP project is technically done. However, the goal of LEEP is to find viable, cost-effective projects at local units of government. Should LEEP provide a viable energy project, the local government would then move to Design and Construction Bid phases, using standard procurement practices. Local units of government have access to many financing options to implement an energy project, including standard methods such as bonds, capital expenditures, tax levies and lease-purchase financing.

In an interview with a Minnesota state employee familiar with all of these programs, the following observations were made:

- Support provided: While a variety of programs have been developed (and are available, per statute), GESP is currently unfunded, but continues to be offered by the State Energy Office using Federal SEP funds. Recently issued Executive Order 19-25 requires Commerce to propose a funding mechanism to provide technical assistance, including GESP. Only LEEP is actively offered as it is the only program that currently has funding. LEEP focuses on assisting towns through completion of an IGA, and then the town must follow through with selection of a company to develop a project proposal, negotiate a contract, complete the work and M&V plan. A lesson learned is that, if the IGA phase is distinct from the construction process, then the pre-qualified ESCO firms who are part of the state Master Contract are not the same companies who would complete an IGA (the ESCOs business model is to complete the commissioning and M&V process – just doing the IGA is not a large enough project size to warrant their attention). However, LEEP does allow municipalities to have the IGA completed, but have the actual construction work be completed by a contracting company they work with frequently, rather than an ESCO with whom they may have no prior relationship. This separation of tasks also means that the guarantee is no longer provided and offered (e.g. it isn't the heating contractor's responsibility to ensure the savings are realized from a specific project). Moving forward, rather than a Master Contract with pre-qualified firms, LEEP plans to provide template documents for a scope of work, the contract, and sample RFP followed by reaching out to the local utility to find out which companies to approach.
- Templates and agreements: Similar to Colorado, a number of templates are provided by the state, with a Joint Powers of Agreement required in order for the local entity to utilize the state Master Contract that includes the pre-qualified businesses. The actual ESPC is signed between the local entity and the ESCP. Having two separate contracts (one for the construction work and one for the financing agreement) has been helpful. Make sure the maximum fee in the Master Contract is not so low that no company will actually respond to the Site-Specific RFP.
- Staffing level and payment structure: The program includes one staff paid for through a State Energy Program funds.
- Marketing: Interviewee did not comment.
- Financing: Towns have utilized bonds, capital expenditures, tax levies and lease-purchase financing.
- Project size and bundling projects: "Everybody talks about bundling multiple public entities (e.g. city and county), but we haven't been successful at it. For whatever reason, we could never get this to work." To service smaller projects, a Master Lease has been helpful.
- Depth of projects: Interviewee did not comment.
- Other:
 - Ideas on how to assist with smaller projects:

- Have the local entity issue their own contract with the State providing technical services (e.g. template documents, helping with the process – but not using the state’s Master Contract)
- Provide a Master Lease so that financial arrangements are established at a more substantial financial amount, providing a stream-lined approach for the lender to then develop work order changes to support smaller projects (as low as ~\$70k). Minnesota provides a Master Lease for local entities that includes a Loan Loss Reserve (LLR) at an original amount of \$2 million through the American Recovery and Reinvestment Act (ARRA); in hindsight, the LLR could be less.

iv. [New York State Energy and Research Development Authority: NY Green Bank Division](#)

NY Green Bank (NYGB) is a division of the New York State Energy and Research Development Authority (NYSERDA) that is a globally recognized asset management organization focused on sustainable infrastructure opportunities and represents a newer approach in the clean energy marketplace. Utilizing best-in-class practices, infrastructure and evaluation methodologies, NYGB expands financing markets by operating where there is limited competition, low technology risk, and high liquidity premiums. NYGB works with entities already achieving success in clean energy, but whose progress is constrained by the lack of available financing.

NYGB’s products can include warehousing and aggregation credit facilities, term loans and investments, credit enhancements, construction finance, construction finance + term loans and investments. NYGB’s portfolio provides for a number of different clean energy project types including energy efficiency, renewable generation, sustainable transportation, fuel cell development and combinations of technologies such as renewable energy/energy efficiency/demand management. The Bank focuses on providing financing support to qualified and creditworthy projects unable to secure support from traditional lenders due to limited track record or perceived limited potential for scale. The Bank can provide financing to various counterparty types, including project developers, commercial and industrial customers and aggregators of residential customers.

An early example of a municipal project includes “Extending Loan Tenors for Deeper Energy Retrofits and Greater Savings” for the Northport-East Northport Union Free School District. This project also involves multiple partners who are co-investing in a lease in the amount of ~\$13.0 million (~\$8.9 million from NYGB and ~\$4.2 million from a private bank) to finance energy improvements at nine schools and one administrative building in the district. The project includes, but is not limited to, lighting retrofits, building envelope improvements, energy management systems, water conservation units, and ventilator refurbishments. At the time of closing, the project was expected to save the District ~\$1.1 million per year, with a portion of those savings to be used for lease payments and the remainder going directly to the District.

An interview with NYGB staff resulted in the following comments:

- Support provided: Interviewee did not comment.
- Templates: While there are modeled energy savings agreements, template ESPCs and modeled applications for energy audits, these always need to be modified to reflect the specific state structure.

- Staffing level and pay structure:
 - If Vermont were to consider a “fee for service” to provide project management and energy analysis support to municipalities, identifying the correct approach and amount would be critical so as to not “kill” the project. To determine an appropriate fee, Vermont could conduct market research to identify what price would cover the costs of services while also not being overly burdensome so as to make the project no longer economical.
 - It is important to think through what happens if a project does not move forward (e.g. if the parties do not sign binding legal agreements and obtain financing that allows them to compensate the service provider). Is it forgivable or is there a “deposit” system?
- Marketing: When first established, NYGB focused on ensuring that market participants were aware of the bank’s existence and the types of roles the bank could play. Now, NYGB is at capacity by working with NYSERDA and receiving referrals from others such as traditional banks unable to service a specific project. The NYGB does issue RFPs and RFIs when working to streamline financing products and solutions in response to an underserved area of the marketplace.
- Financing:
 - NYGB has provided financing for small and large loans; the level of effort to administer loans is not necessarily greater for larger loans. Thus, NYGB has higher relative fees for smaller projects. While NYGB does require a guarantee or a form of bankruptcy support (such as a security package – a legal structure and provisions that give lenders protection in the event of borrower bankruptcy and help mitigate loss via replacement of servicer, or the ability to foreclose on financed assets or other collateral), this is not necessarily required (i.e. the interest rate could be increased, or a strong credit rating could provide a level of security for the lender). NYGB guarantees are typically provided by the sponsor or parent company (usually an entity near the top of the organization chart for the borrower group). However, in structured project finance transactions, NYGB does not always require such guarantees but instead looks to the structuring to provide protections in the event of bankruptcy of the borrower.
 - For NYGB, a \$200,000-\$500,000 (“and even up to \$1 million”) standalone project has not made sense to go through a bond process; they have found that projects this size need to be aggregated with other projects to address fees and upfront project costs.
- Project size and bundling: Interviewee did not comment.
- Depth of projects: Interviewee did not comment.
- Other:
 - NYGB utilizes NYSERDA’s list of approved contractors. It is important to select a contractor who is (not only) reputable but also capable of completing paperwork. If there is no security or guarantee and the town is taking the risk, then this becomes even more critical. While paperwork can be viewed by vendors and contractors as an irritation, it can also serve as a mechanism to “weed out” vendors and contractors who ultimately may not be as reliable as others.

v. North Carolina Department of Environmental Quality: Utility Savings Initiative

The four-person team at the North Carolina Department of Environmental Quality (DEQ) State Energy Office (SEO) manages the Utility Savings Initiative (USI), a program that provides technical assistance to public entities pursuant to N.C. G.S.143-64.12(j). The USI was created to assist North Carolina governmental units in managing the use and cost of energy, water and other utilities in their facilities. It serves state agencies, the University of North Carolina system, the state's community colleges, public schools, county and municipal governments.

While the services provided by state staff are similar to those provided in Colorado, Minnesota and Washington, the approach appears to be less formal and less documented. Specific services include:

- Assisting local employees in establishing and understanding baseline energy usage at public facilities;
- Developing preliminary energy savings goals and a management plan;
- Completing preliminary energy audits (Investment Grade Audits are completed by the ESCO);
- Providing oversight of Guaranteed Energy Savings Contracts (GESC), and:
- Ongoing support for implementation of the town or facility utility management plan.

The program initially launched in 2007 and has seen various levels of awareness and utilization of its services over the last twelve years, in part due to the level of grants available for local entities: "In the days of the American Recovery and Reinvestment Act, everyone knew who the State Energy Office was...Some government units are adverse to borrowing money and if the county isn't going to give it to them, then they won't do a project even if it saves them money in the long-run. People are sort of leery of borrowing money, especially in Appalachia."²³

In North Carolina, the only mechanisms in place to fund energy upgrades in public buildings is through state budget allocations or through an agreement with an ESCO. North Carolina revised statute allows local entities to receive financing through an ESCO but not through a bond. All projects must receive approval from a local government commission to enter into a financial agreement with an ESCO. This local government commission frequently looks to the state staff for their review and "approval" of the project and the ESPC (although this is not "authorized" or "required" but has rather developed as the program has evolved over the past decade.)

While the ESCO does provide a guarantee, the critical role the ESCO provides is that it is the only mechanism through which local entities can receive financing for these projects (due to the way in which the statute is written). The guarantee is not considered to be a critical feature to the program: "At the end of the day, folks have done a project and then they move on. What performance contracting does, in a nutshell, is provide the government units access to cash that they otherwise wouldn't have. The guarantee is only a guarantee if you aren't adjusting baselines, adjusting rates..."²⁴

²³ Author interview with North Carolina state employee, March 27, 2019.

²⁴ In this statement, the interviewee was referring to situations in which the ESCO presented an energy savings report that showed the guaranteed savings occurred, but the ESCO was able to do this by shifting the savings baseline from what was originally presented at the outset of the project. With regards to adjusting rates, if an ESPC states "this project will result in X dollars' worth of savings", but the cost of energy increases, then the dollar savings will not necessarily be achieved (and therefore the "guarantee" has not been guaranteed).

An interview with North Carolina staff presented the following observations:

- Support provided: State employees provide an array of technical assistance from development of baseline usage to prioritization of energy upgrades. Less formal than other states, with regards to documentation of roles, e.g. MOUs or Joint Powers of Agreement.
- Templates and agreements: The USI team has developed a number of templates and documents to assist the local entities in understanding what to ask and look for in an ESPC and the ESCO.²⁵
- Staffing level and pay structure: A four-person team paid for by the state budget.
- Marketing: Word-of-mouth and “cold calls” by state staff.
- Financing: Only available through the state budget or an ESCO.
- Project size and bundling: North Carolina has had a fair degree of success with completing projects less than \$1,000,000, including projects as small as \$300,000.
- Depth of projects: Currently, the projects are not achieving deep energy savings, in part because the utility rebates for LEDs have been reduced, and therefore the LED lighting upgrades are unable to “carry” the cost of some of the other, longer return-on-investment efficiency measures. Recent projects have resulted in lighting upgrades combined with building automation, and “a few boilers...but no chillers, no HVAC equipment.”
- Other: While the technical assistance is critical to achieving energy savings through completed projects, the first and most critical step in the USI involves developing trust between the local representative and the state staff. “These government units, a lot of times, they really don’t know, outside of one or two people, what they are spending on utilities...so for me to already know how much they are using, is huge. It could mean three different site visits, but to finally have someone tell me ‘I have five bills and I don’t know what I am spending’ – that’s the start of it all...before people care about how much I know, they need to know how much I care. It’s about developing a relationship.”

vi. Rhode Island Infrastructure Bank and Office of Energy Resources: Rhode Island Efficient Buildings Fund

The Rhode Island Infrastructure Bank (RIIB) and the Office of Energy Resources (OER) jointly administer the Rhode Island Efficient Buildings Fund (RIEBF). RIIB is Rhode Island’s central hub for financing a variety of infrastructure-based projects such as water and wastewater, road and bridge, energy efficiency and renewable energy, and brownfield remediation for municipalities, businesses, and homeowners. Established by the Rhode Island General Assembly in 1989 as the Clean Water Finance Agency, the Infrastructure Bank’s mandate was significantly expanded in 2015 to include energy and brownfield remediation initiatives. Meanwhile, the Rhode Island OER is the state’s lead agency on energy policy and programs.

The RIEBF process involves the following key parties:

- RIIB for the financing National Grid for free audits (paid through efficiency surcharge) and energy data review
- Cadmus (procured by RIIB) for energy analysis, audit and energy project proposal review
- OER for review and selection of energy projects to be placed on a priority project list

Eligible properties include municipal buildings, schools, publicly-owned utilities, such as wastewater or drinking water facilities, and quasi-state entities. Financing can be repaid over terms of up to 15 years

²⁵ <https://deq.nc.gov/conservation/energy-efficiency-resources/utility-savings-initiative/performance-contracting>

and can be structured to provide annual cash-flow savings to the borrower. For a project to be eligible for financing, it must first be placed on OER's Project Priority List (PPL). To participate, applicants must first complete an application along with an energy audit of the facility(ies). National Grid provides free energy assessments for up to five public buildings or facilities per governmental entity, as resources allow. An audit can be requested by completing an on-line form; requests are filled on a first-come, first-served basis. OER ranks and scores project applications based on transparent scoring criteria, which results in the production of a PPL at least once annually. Projects are awarded financing based on their ranking on the PPL, readiness to proceed and availability of funds. Borrowers are required to report energy use for at least five years following loan closing and have in place or develop an Energy Management Plan within six months of loan closing. There are a variety of forms and documents available on the OER and RIIB websites, including energy project applications and submission instructions, energy management plan documents, template letters of intent and more.

In an interview with the RIEFB, the staff made the following key points

- Support provided: Interviewee did not comment.
- Templates and agreements:
 - Like Minnesota, the RIEBF team has found that having two separate applications—one for the project (reviewed by OER) and one for the financing (reviewed by RIIB) has been helpful; the RIIB application asks for a significant amount of information early in the process
 - Making the project application as easy as possible and providing assistance up front helps municipalities prioritize the project.
- Staffing level and pay structure: The free energy audits provided by RIIB and National Grid were key to building a pipeline of potential projects. However, the towns still didn't have the staff to digest the energy information and to make the decisions and to move through procurements. After providing the audits, the team realized the barrier for municipalities to move forward wasn't the audit, it was helping them understand their baseline and prioritize projects and investments.
- Marketing: Don't sell the municipality on "energy efficiency"; rather, review their capital plans and understand their priorities, and then work the energy efficiency components into the overall project to improve the investment return ("because municipal officials often would rather put their money into roads or potholes – something the public sees").
- Financing: If the Vermont Bond Bank can offer very low cost of capital funds to municipalities, and is willing to aggregate projects, then the challenge in Vermont may not be financing but may instead be project origination and developing the willingness of cities and towns to make the investment.
- Project size and bundling: Setting a minimum total loan amount (even for bundled projects) is helpful; \$250,000 is the smallest loan RIEBF has provided for the final bundled amount for multiple projects located within the same town or city.
- Depth of projects: Interviewee did not comment. However, interviewee did state that the deeper the energy efficiency, the more complicated things can become, with multiple change orders. Therefore, the RIIB coordinates with the technical assistance provider to ensure adequate financing is available once the application has been submitted and approved, and then it is placed on the project priority list.

- Other:
 - While the project may save money for the municipality over the long-term, because they are not mandated (like clean water projects) it becomes more challenging to motivate municipalities to complete projects; for this reason, providing free audits and technical assistance and support, becomes critical in project completion.
 - Municipalities are tending to purchase renewable power, rather than own their own generation (except in the case of smaller-sized projects).

vii. Washington State Department of Enterprise Services: “Energy Savings Performance Contracting”

Washington’s ESPC program was initially developed to provide a means to install energy conservation measures (ECMs) in state facilities without affecting the State’s capital budget. The ESPC program within the Department of Enterprise Services (DES) has since been expanded to provide energy conservation services to all public facilities in the State. The ESPC program has been involved in over \$1 billion in total energy construction projects since its inception in 1986, resulting in \$40 million a year in annual utility cost reductions to public facilities.

While parts of DES’s ESPC program are like other states such as Colorado and Minnesota, for example in pre-qualifying vendors and providing a variety of templates, the Washington program is more formalized, and DES takes more of a “hands on” rather than an advisory/support role to the “Client Agency” (cities, towns and others). Further, Washington’s model can be described as “the ESCO model minus the financing”.

In an interview with state staff, the following observations were made:

- Support provided: Like many other states, DES staff do act as advocates for the Client Agency, however it appears that DES staff are more deeply and intricately involved in ESCO project management and in the Client Agency/ESCO interactions. DES staff can assist the Client Agency to identify potential ESCO projects, they review ESCO project proposals for consistency with state guidelines, and review measurement and verification reports after project completion.
- Templates and agreements: These include a Master Energy Services Agreement with pre-qualified energy firms, updated on a biennial basis (includes maximum project costs and maximum fees); an Interagency Agreement (similar to Minnesota’s Joint Powers Agreement and Colorado’s MOU, the IAA is an agreement between the city/town and the DES Energy Program and allows the client to select an ESCO from the Master Contract and the DES to provide overall contracting and project management services to the Client Agency); an “Energy Savings Performance Contracting Program Process Description” and an “Energy Savings Performance Contracting: Guidelines for Public Agencies in Washington State” (these detail the program process, including the three potential outcomes of the Investment Grade Audit and the cost-effectiveness criteria as defined in Washington State Chapter 39.35C.010 RCW.)²⁶ ²⁷ Additional program templates and process steps are included in the Appendix.

²⁶ Energy Savings Performance Contracting Program Process Description. Washington State Department of Enterprise Services. 2012. https://des.wa.gov/sites/default/files/public/documents/Facilities/EPC/ESPCProgramProcessDescription.pdf?_=ac667

²⁷ Energy Savings Performance Contracting: Guidelines for Public Agencies in Washington State. Washington State Department of Enterprise Services. Revised December 2015.

https://des.wa.gov/sites/default/files/public/documents/Facilities/Energy/ESPC-Guidelines.pdf?_=ac667

- Staffing level and pay structure: Compensation for DES's Energy Performance (EP) services is based on a pre-determined fee schedule that sets project management compensation levels based on the total project value. If the Client Agency proceeds with a project, then they are obligated to pay DES based on the project management fee schedule. If the ESCO fails to develop a project that meets the Client Agencies established cost-effectiveness criteria, then there is no cost to the Client Agency. If a fee-for-service approach is utilized, it is critical to ensure that the fee doesn't "kill" projects.
- Marketing: DES staff conduct some marketing with public agencies, attending conferences and occasionally "cold calling." However, most project work comes from developed relationships between the ESCOs and the Client Agencies.
- Financing: Client Agencies in Washington typically finance projects through bonds through the State Treasurers Office or other private bank loans, rather than financing the project through the ESCO. The State Treasurer's Office is like the Vermont Bond Bank, in that they are willing to aggregate smaller bonds and they frequently provide better rates than other lenders.
- Project size and bundling: The average project size is \$1-2 million, though the DES has seen some smaller projects. The RFQ seeking ESCOs does ask whether there is a project size that is "too small", which the applying ESCOs usually respond to with a "no." However, there have been projects that have been considered too small by ESCOs²⁸, after the fact.
- Depth of projects: Washington has seen a variety of depth of projects.
- Other:
 - One of the cornerstones of the ESPC program in Washington State is "open book" pricing. Construction costs are defined as "the actual cost of purchasing and installing the ESCO equipment, as demonstrated by the installation price quotes or construction contracts." This means that the ESCO furnishes all the subcontractor and equipment invoices as backup to the invoices it submits.
 - DES has worked with the ESCOs to see the three-year M&V stage (the requirement is only one year, however) as an opportunity to develop a relationship with the Client Agency that may lead, potentially, to additional projects. Further, with thirty years of experience, "the ESCOs have learned that playing the long game is the right way to do it."

viii. [Wisconsin Office of Energy Innovation: "Municipal Energy Efficiency Technical Assistance Program"](#)

Wisconsin's Municipal Energy Efficiency Technical Assistance Program (MEETAP), housed within the Office of Energy Innovation at the Public Service Commission provides technical expertise- on both the administrative and engineering levels- to help municipalities through the ESPC process for the implementation of a successful energy efficiency project. Like other state programs discussed earlier in this report, MEETAP staff assists municipalities in creating a baseline of building usage, developing a plan to reduce the local entities energy burden, and posting an open, public invitation for a preliminary audit of the public facilities. WI does not have a list of pre-qualified ESCOs and the law only mandates that the performance contract be with a "Qualified Provider." Therefore, municipalities must issue a Request for Qualifications (RFQ) prior to soliciting the full bid. The RFQ asks for a preliminary audit/walkthrough and references as well as evidence that the contractor has successfully completed this type of work. MEETAP maintains a list of every ESCO working in Wisconsin but does not guarantee their qualifications. MEETAP

²⁸ For example, an \$85,000 project proposed by a school district was turned down by two ESCOs before being contracted with a third ESCO.

then assigns an experienced energy engineer to represent the municipality and work with that entity to facilitate equipment and subcontractor selection, evaluating preliminary audits and assisting in the IGA selection followed by assistance with developing an Energy Assessment Report. ESPCs are not signed until the local entity understands the project, timeline, guaranteed savings, and long-term M&V plan. The MEETAP program's current focus is on water and wastewater energy efficiency, the largest energy user in most municipalities.

- Support provided: MEETAP support includes administrative, financial and engineering technical assistance.
- Templates and agreements: Any municipal entity can join any open state contract. MEETAP has a number of templates for municipalities such as Benchmarking Analyses.
- Staffing level and pay structure: One staff person supported by Federal funds from the US DOE EERE State Energy Program (SEP), and one contracted qualified energy engineer also supported through SEP funds.
- Marketing: Staff markets the program in person at targeted events that stakeholders already typically attend (e.g. conferences where representatives from schools, municipalities, wastewater operators).
- Financing: MEETAP staff also assists the local entity in understanding their financing options, which may be "traditional" financing through the ESCO or may be utilizing the Board of Commissioners of Public Lands (BCPL) state trust fund or opting for traditional bonds. The BCPL has invested in loans to municipalities and school districts for public purpose projects since 1848, offering fixed rate loans with interest rates that are competitive with the bond market utilizing a simple application process that has no application fees, prepayment penalties or any other fees. Further, interest that is earned is distributed annually to fund public school library materials throughout the State.²⁹
- Project size and bundling: MEETAP has had at least one success with bundling, whereby several projects within one county were aggregated for better financial returns and deeper savings.
- Depth of projects: Through the first preliminary audits, MEETAP encourages municipalities to look at the entire building rather than "going for the easy savings, because then you can bundle the quicker payback measures with the slower payback measures and still have a reasonable return on investment."
- Other:
 - From bonding to ESPCs, it is critical to look for the hidden fees. It is critical to "hold the ESCO's feet to the fire" by having the local entity drive the conversation and goals from the start of the project and having a third party oversee the ESCO's M&V plan and process.

ix. U.S. Department of Energy, Energy Efficiency and Renewable Energy Division
Staff within the Energy Efficiency and Renewable Energy Division (EERE) of the United States Department of Energy are actively researching different approaches to financing energy projects. For example, EERE staff will soon be releasing a guide for ESPC for small buildings and/or small communities. The guide includes several strategies for bundling projects, such as developing an RFP jointly with other communities that are in close geographic proximity, but then entering into separate contracts with the ESCO if the communities choose to move forward with the work ("procure together, contract separately"). The guide also includes case studies and provides a decision-tree to proceed through an

²⁹ <https://bcpl.wisconsin.gov/Pages/Home.aspx>

ESPC as well as other, qualitative strategies such as taking a phased approach to completing multiple projects with one ESCO.

x. Summary and Key Takeaways from Interviews with Other States

The above set of findings should not be considered exhaustive or complete. Rather, they should be interpreted as a sampling of program designs and “lessons learned.” Nevertheless, themes do emerge.

First, it is helpful to keep in mind that many states have developed various tools, programs and documents to assist towns and cities in completing energy projects.³⁰ Continuing along the same vein, every state has enacted legislation that allows ESCOs to serve local government units.³¹ However, as was shown by the state findings presented above, having the existence of a specific energy financing model such as an ESPC program (including the necessary statutory language and available templates) will not guarantee that the program will be utilized or that projects will be completed. Indeed, the American Council on an Energy Efficiency Economy’s initial introduction to their list of state ESPC programs begins by saying that energy projects can be financed through ESPCs “if the necessary encouragement, leadership, and resources are in place.”³²

Second, every interviewee stated the need to “meet the municipalities where they are”, to keep things simple and to utilize the tools and entities that already exist within one’s state. Many of the interviewees also highlighted the need to take the time to develop trusting and interconnected relationships between the local entity, the lender, the contractor providing the energy savings analysis and/or construction work and other stakeholders. For states that utilize ESCOs, the state-municipality-ESCO dynamic is a unique balance of collaborating with the ESCOs to develop a program that they will participate in, while also “holding their feet to the fire” to ensure that the local entities’ needs drive the project from start-to-finish.

Other key takeaways are presented below, in a similar fashion as provided above by individual state:

Topic area	Takeaway
Support provided	--Meet with various stakeholders (e.g. VLCT, VECAN, the energy efficiency utilities, the Bond Bank, Municipal Leasing Consultants, ESCOs, select towns and cities, SEMP) to identify and clarify who can provide which roles, identify missing program elements and identify next steps to developing a new program --Vendor selection, energy analysis, M&V support, project management support, and financing support have all been helpful to different entities; ensuring the initial contact is easy, is critical (e.g., Connecticut’s on-line application for a free audit) --Developing a pipeline of projects can be done via (1) providing an initial free audit, followed by (2) developing a Project Priority List (e.g., Rhode Island)
Templates and agreements	--There are multiple templates and agreements available from other states, but all of these would need to be reviewed and modified to ensure applicability to Vermont

³⁰ For example, Virginia’s Treasury Department oversees an Energy Leasing Program, Nebraska and Michigan have revolving loan funds with a variety of credit enhancements, New Hampshire has an on-bill financing program, Pennsylvania’s Treasury Department has established the Pennsylvania Sustainable Energy Finance Program – and there are many more programs, offerings and initiatives.

³¹ <https://database.aceee.org/state/energy-savings-performance>

³² <https://database.aceee.org/state/energy-savings-performance>

(particularly with the ESPC model)	<ul style="list-style-type: none"> --Develop clear but simple documents that are not too constricting (e.g., a Master Contract can become onerous to modify) and yet provide the level of guidance needed to establish roles and responsibilities --Separate the financing contract from the construction contract --If working with an ESCO: <ul style="list-style-type: none"> -----Develop a template contract which the local entity can modify but the ESCO cannot -----Establish open-book pricing with maximum project costs and maximum fees (although these must not be so low that ESCOs are not interested in ultimately doing the work). Identify where fixed costs are doable (on the measure? Or labor only?) -----Pre-qualifying contractors can be: as simple as mirroring Efficiency Vermont's list of approved vendors, or a biennial state review process, or can be flexible to allow the local entity to choose their preferred contractor -----Most states that provide an "advocate" role on behalf of the local entity have defined clear lines beyond which they do not cross (e.g. they provide support and review of proposals but do not vote on the proposal, they provide review of an M&V plan but not dispute resolution) -----A state program can utilize the ESCO for the audit, construction and M&V...but not the financing (e.g., Washington State) -----If the M&V is done by the ESCO providing the construction work, then having a 3rd party review the M&V proposal prior to contract signing (and review the annual results) is critical. States vary with some M&V requirements set at one year, and some upwards to five years. -----A guarantee is only as good as the M&V plan, report and report review. It may or may not be necessary.
Staffing level and payment structure	<ul style="list-style-type: none"> --Many states have between 1 – 3 staff paid for through: <ul style="list-style-type: none"> (a) the state budget, (b) federal SEP funds, (c) the efficiency surcharge (e.g. Connecticut), or (c) one-time funds (e.g. ARRA) for the initial program set up followed by utilizing fees from the savings resulting from prior energy projects (establish fees by conducting a simple market survey or reviewing a database of projects/project costs/project savings from Vermont towns and cities or the SEMP program to determine a proxy for a reasonable fee)
Marketing	<ul style="list-style-type: none"> --Go where the local entities are: <ul style="list-style-type: none"> (a) to conferences they are already attending (b) with entities they work with (e.g., VLCT) (c) to events that energy-conscious constituents attend (e.g., annual VECAN conference)
Financing	<ul style="list-style-type: none"> --A variety of financing mechanisms are used: <ul style="list-style-type: none"> (a) on-bill financing / repayment (developing the on-bill component requires significant upfront and ongoing effort but has been very helpful because it can be considered "non-debt". When combined with 0% interest rate, customers engage significantly. A program can still offer the same financing product but be handled via a separate bill). (b) municipal leasing and lease purchase financing (a state can establish a Master Lease under which towns may enter separate work orders for much smaller project sizes)

	<ul style="list-style-type: none"> (c) bonding (states with similar entities like the Vermont Bond Bank have seen considerable use of this mechanism – although it still requires a public vote) (d) revolving loan fund (depending on the size and requirements of the loan, this has been very helpful in some states) (e) ESCO (see specific information regarding ESCO's above in “Templates and agreements”) <p>--Loan loss reserve: States that have developed and overseen a loan loss reserve for the lender have determined that they need far less reserve (e.g. far less than \$2 million from ARRA funds) and that the loss was <1%</p> <p>--Credit-check: Many states have found that ensuring that a town or city has paid its utility bills is a reasonable proxy for providing a loan</p>
Project size, depth of projects and bundling	<ul style="list-style-type: none"> --The size (\$) and depth of projects completed by the multiple states interviewed vary considerably, with Connecticut’s on-bill program providing significant resources to many projects under \$500,000, while states that rely on the ESCO market finding that the “\$500,000 to \$1,000,000 threshold being very real”. To accomplish smaller projects and/or deeper savings requires ensuring that the easiest measures (lighting) are not done in isolation but are rather used to balance out longer-term savings. --Only two states mentioned a bundled project (and each state only mentioned one) – while bundling continues to be discussed, it remains challenging due to the need to separate out where savings occurred or didn’t, where payments are due (or not). DOE suggests “procure together, contract separately).

Given the above themes, and the fact that what works so well in one state could not succeed in another (e.g. the ESCP model works in Washington (with a fee!) but not as well in Connecticut (with no fee!)), how might the above lessons fold into and inform the Vermont discussion about how to assist municipalities in financing and completing more energy projects?

Thus far, this report has described that there are financing products available to local entities (Section III), and that towns and cities are, indeed, completing energy projects (Section IV). And yet, as presented in Section V, 75% of town survey respondents stated that financial support is essential and very helpful to completing projects, followed by nearly 60% stating that experienced energy staff (at no charge) is essential and very helpful to completing energy projects. Further, when asked which of six obstacles (including obtaining financing) were the most challenging for municipalities to complete energy projects, “Getting started! Knowing where to begin!” and “Overall Project Management” were the top two obstacles selected. This finding was further corroborated by an energy committee volunteer from Montpelier (the first Vermont municipality to set up its own revolving loan fund for energy projects) who stated the following:

“My biggest takeaway is that the funding part is relatively easy, it is developing the projects, getting quotes, and getting them done (project management) that is really the heavy lifting.” -MEAC member

In Section VII, we turn to ideas regarding how to apply the lessons from other states, to Vermont.

VII. Opportunities for Vermont

As described earlier, there are a number of financial and non-financial tools available to local entities in Vermont to complete energy upgrades. With the lessons and feedback provided through the interviews with other states in mind, we can now review these tools to assess opportunities to increase energy savings through completed energy projects, for our towns, cities and citizenry.

i. Financial Tools

As described earlier, the current primary “tools” in the Vermont *financial* tool box include the Vermont Bond Bank, ESCOs, municipal lease financing and in Montpelier, a (small) revolving loan fund.

The Bond Bank is willing to aggregate and serve smaller sized loans (as low as \$60,000), it does not require a “guarantee” and it generally provides the lowest cost of capital available to municipalities. An interview with the Executive Director of the Bond Bank revealed significant willingness to work with other stakeholders to design a loan product geared towards energy projects: “We could design a Green Bond Series, if that would help market the program – although we would want commitments to reporting the savings results.” While the Bond Bank can provide some financial technical support, with three staff, the Bank would not be able to assist towns and cities in understanding the detailed financial agreements within an ESPC. The other potential challenges with utilizing the Bond Bank are that if a town is unwilling to take on the debt of a bond, then the low cost of capital and flexible willingness to aggregate projects may not motivate the town to move forward. Further, if there are multiple projects seeking bonding approval from the voters (for example, a mandated water treatment improvement, a new fire station and an energy upgrade) it is likely that the first two investments (to be in legal compliance and to provide for public safety) would likely outweigh the bonding request for an energy upgrade. Finally, seeking voter approval for a bond takes additional effort and can require expenditure of political capital on behalf of those overseeing the town; there can be reluctance to advocate and work towards a bond only to have it not be approved.

ESCos are present in Vermont, but they are not prolific. Further, as provided earlier in this report, many ESCOs do not want to work on projects that are less than \$1,000,000. However, if there is interest in utilizing ESCOs more in the future, then meeting with ESCOs and discussing their needs and interests to identify opportunities for greater involvement could be helpful in designing a program that will see ESCOs choose to participate. Finally, if Vermont is interested in utilizing ESCO services more frequently, then identifying ways to provide technical and financial support (as described previously) to towns and cities would be critical to seeing projects completed.

Municipal lease financing is available in Vermont but could be far more frequently used by towns and cities. Exploring whether a Master Lease would benefit towns and cities would likely a worthwhile endeavor. An initial step in this direction could be to review the Master Leases developed in other states to assess (a) their level of applicability to Vermont and (b) discuss future opportunities with lenders providing this service in Vermont.

ii. Non-financial Tools

As described earlier, the current tools in the *non-financial* Vermont tool box to assist local entities in completing energy projects include Efficiency Vermont, the Vermont Energy and Climate Action Network and Vermont League of Cities and Towns. Efficiency Vermont provides detailed technical

analysis and incentive support, but there are limitations to the extent of technical and incentive support that the efficiency utility can provide. The Vermont Energy and Climate Action Network (VECAN), with over one hundred local town energy committees, could assist in motivating and educating local entities if a new program were initiated. During her interview for this report, the program manager of Colorado's ESCP program stated: "VECAN is perfect! That's exactly the type of group I market to. I go to their meetings and conferences, and then they spread the word at the local level." Similarly, many of the energy program managers stated during their interviews that meeting the towns where they are at, finding out what their concerns and priorities are, and then working energy upgrades into solutions, is critical:

"For local governments, they are not monolithic, however working with Vermont League of Cities and Towns...this is a secret sauce – you have to go out and meet the towns with where they already are. And dovetail with their goals and their missions and simply show them how to integrate energy efficiency and renewable energy into their current work. They do want to fix their buildings—they have so much deferred maintenance. But the age-old issue is how to find the money for that...we are all searching for money that isn't there."³³

An interview with a Vermont League of Cities and Towns employee resulted in the following comments:

"Towns *do* want to do these projects, but they are complicated and involve multiple groups and vendors. So that is a part of the problem – how do you choose a vendor, who do I talk to, what should the contract look like, how do you finance it, what's the payback look like?"

When asked whether towns would be able to do more projects if they received project management support, the answer was:

"You'd still have to educate towns and cities. How much education is needed? It's not so much of a no brainer because a lot of people just are not familiar with these energy concepts. But towns are a lot more interested in doing these projects because their citizenry is a lot more interested in doing those projects. Towns are getting asked to look for these kinds of things. So really the assistance for 'how do you do it?' and 'what does the spreadsheet look like'...I think it could work."³⁴

iii. A Potential Tool?

Enter the State Energy Management Program (SEMP) housed within the Department of Buildings and General Services (BGS). SEMP administers the interest of the State in all energy management measures, the implementation of energy efficiency and conservation measures, and the use of renewable resources in state owned and operated buildings and facilities, and space leased to the state. The SEMP is implemented through two revolving loan funds that are used to finance energy management measures in State buildings and facilities.³⁵

In accordance with ACT 58 of 2016 Sec. E.112 ENERGY EFFICIENCY; STATE BUILDINGS AND FACILITIES³⁶, BGS and Efficiency Vermont agreed to augment the SEMP for a preliminary period of four years to

³³ Interview with Department of Energy, Energy Efficiency and Renewable Energy staff. March 19, 2019.

³⁴ Interview with Vermont League of Cities and Towns employee. March 15, 2019.

³⁵ This paragraph, and the explanation of SEMP through page 45 are excerpts provided by SEMP staff. January 25, 2019.

³⁶ [ACT 58 Sec. E.112](#)

deliver \$150,000 in energy savings in fiscal year 2016, and a cumulative amount of not less than \$300,000 in fiscal year 2017. As required by ACT 58, Efficiency Vermont has supported the creation and maintenance of BGS's SEMP team with sufficient funding for the annual salary and benefit adjustments for three BGS employees.

Efficiency Vermont and BGS established a Memorandum of Understanding (MOU) to outline the development and implementation of the SEMP. The MOU created a roadmap and enabled both organizations to work in close partnership to leverage strengths, experience, and resources. The program finished its third year of the four-year preliminary period in 2018. After an initial development phase in year one, the SEMP is now exceeding target goals, as shown in the following graphics.

SPOTLIGHT ON:

Vermont Department of Buildings and General Services State Energy Management Program Results

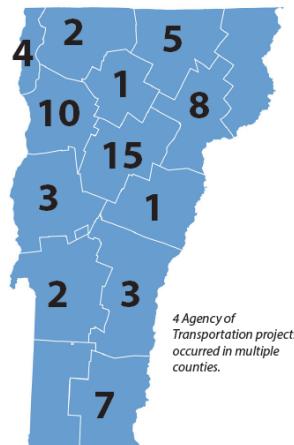
What is the State Energy Management Program?

"SEMP" is an innovative program managed within the Vermont Department of Buildings and General Services that implements energy efficiency, conservation and renewable energy projects financed with revolving loan funds.¹ All Vermonters save money through these projects.

Savings From SEMP Program

50 Completed Projects in
12 Vermont Counties;
15 In Process = 65 Total

Proposed Cost	\$8.6 million
Ave. Annual Savings	\$1.1 million
Lifetime Savings	\$16.6 million



An example of savings generated from the SEMP program is the LED lighting upgrade of spotlights that illuminate the State House. This project saves the State about \$7,500 annually.

Savings

\$8 million in net lifetime savings PLUS at least 1.4 million metric tons of CO₂ equivalent emissions. This equals...

\$8,000,000 net
lifetime savings

122,162,806
gallons of gasoline

177,680 Vermont
homes heated for a year



PLUS



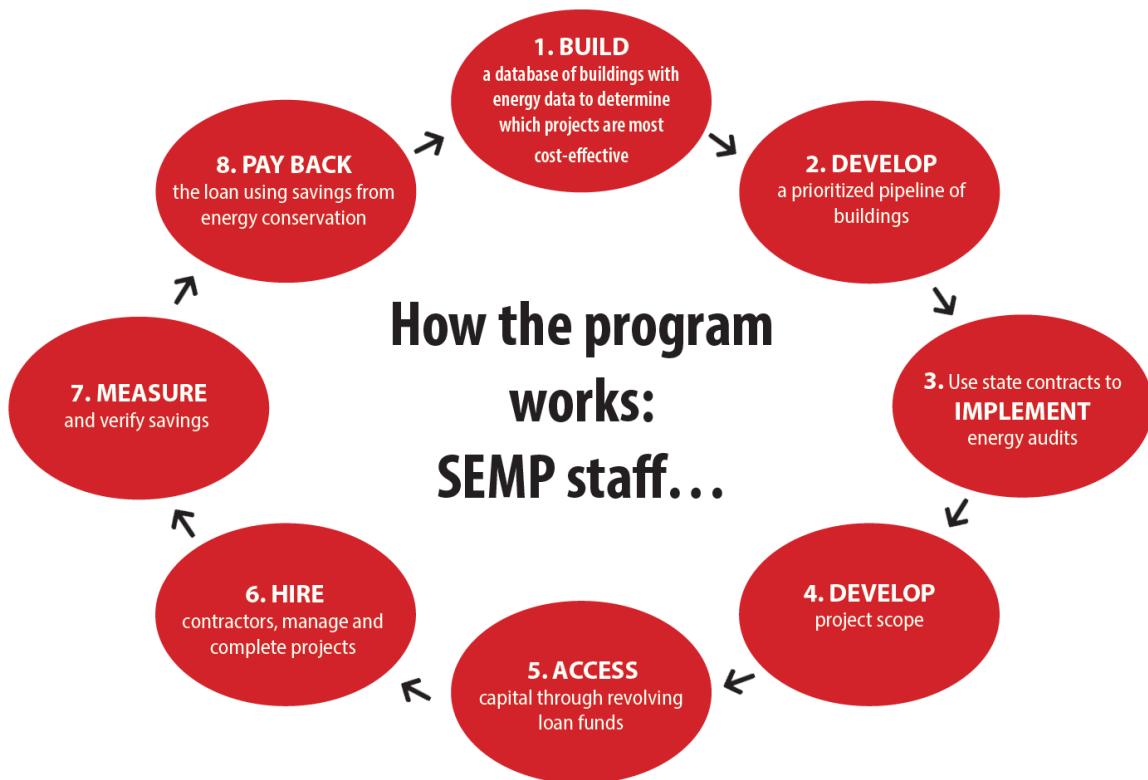
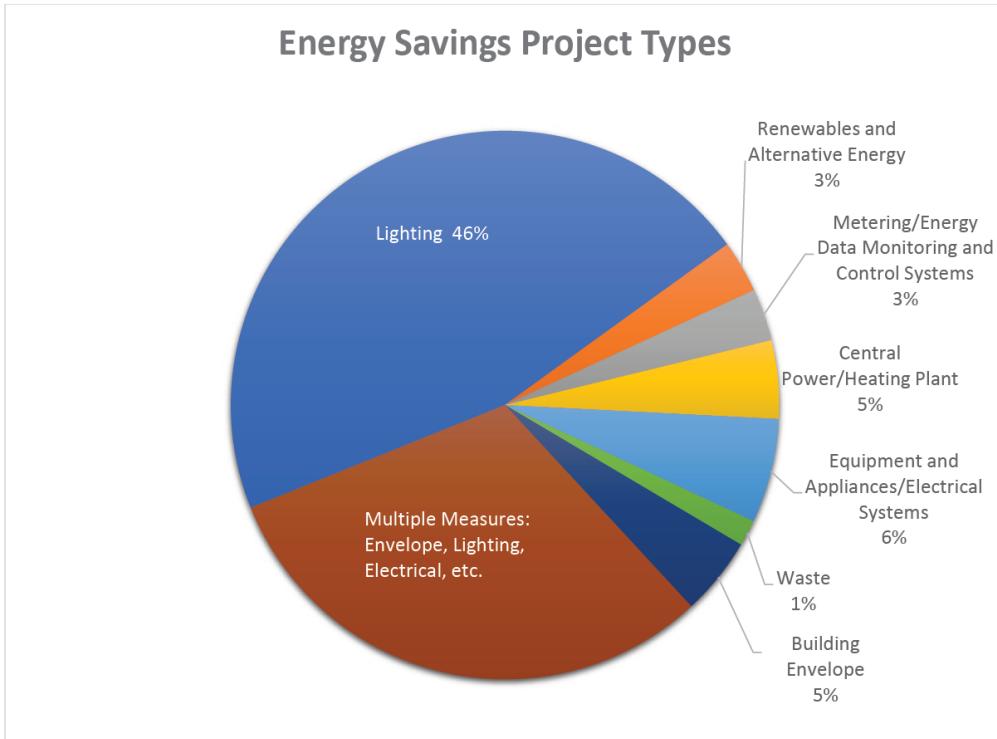
OR



On-line tools and sources for conversions are available here:

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>
<https://www.epa.gov/statelocalenergy/avoided-emission-factors-generated-avert>
<https://www.ncdc.noaa.gov/monitoring-references/maps/us-climate-regions.php>
<https://www.epa.gov/energy/egrid-summary-tables>
https://www.eia.gov/energyexplained/index.php?page=about_energy_units
<https://www.raponline.org/knowledge-center/economic-benefits-and-energy-savings-through-low-cost-carbon-management/>

¹ ACT 178 of 2014 Sec. 41, § 168 and ACT 58 of 2016 Sec. E.112 ENERGY EFFICIENCY; STATE BUILDINGS AND FACILITIES outline the details of the SEMP program. The SEMP program is administered by the Department of Buildings and General Services, and relies upon the support of Efficiency Vermont and the Vermont Treasurer's Office.



BGS notes that the SEMP program can be understood to build on and improve upon the ESCO model discussed above. To address the shortcomings described earlier with the ESCO business model (e.g. high overhead costs, ESCOs having limited interest in smaller projects, and larger energy retrofits attractive to ESCOs being limited by their financial model), the SEMP includes key components of the ESPC model, but rather than contracting with an ESCO, state employees oversee the energy audits, scope development, budgeting, request for proposals, contracting, project management and energy savings monitoring and verification. Because SEMP is driven by public interest alone, and not adhering to a for-profit business model, SEMP is able to pursue energy savings measures that have a short payback (e.g. lighting) and those that may have a longer payback (e.g. weatherization) and still have the project be financially viable.

Key elements of the SEMP model include:

- A. Building a substantial database of municipal buildings with energy data needed to analyze building performance in energy consumption and dollars spent to develop a prioritized pipeline of buildings for inclusion in the pilot
- B. Using State contracts to implement energy audits that include investment grade proposals of work to be implemented and the associated financial and energy savings to municipal governments dedicated to energy savings
- C. Accessing capital from a separate financial institution using credit enhancements as available to reduce the risk and cost of borrowing
- D. A turnkey process that involves oversite of the energy audits, project scoping, RFP development, contractor hiring, project management and delivery
- E. Following up mechanisms, including measurement and verification of energy conservation measures as part of an energy savings guarantee to ensure savings and performance are realized
- F. Effective in-house experts and managers adequate to receive, evaluate and provide oversight and project management services during delivery of services
- G. Effective oversight and verification of savings from the customer perspective

BGS states that the advantage of this model from a customer perspective is the ability to join a team that is dedicated to developing a long-term program focused on systematically reducing the energy usage and associated cost for their facilities. Concerns with the model are that the ambitions for savings are typically a subset of cost-effective measures. As a state-supported initiative, the cost savings that would typically be shared with the ESCO would instead pass through to the local entity and help support future upgrades with new municipalities.

The key distinction for the SEMP model from the standard ESPC model, according to BGS, is the internalization of technical experts to organize and manage an energy savings performance contract within the organization which leads to lower fees and costs, thereby increasing the potential for deeper savings.

iv. Potential Next Steps

Clearly, there could be an opportunity to provide municipalities with the financial and project management support they say is “essential” and “very helpful” to meeting state energy goals. Yes, there

are many questions as to the best path forward to provide this support. However, it appears that there are multiple tools available and several lessons to heed from other states. Now what is needed is “the necessary encouragement, leadership, and resources”³⁷, followed by discussions with stakeholders to begin the initial steps to identifying a potential program design that coordinates and leverages available financial and non-financial tools.

Potential next steps to developing a way for state government to assist local entities in completing more energy upgrades could be:

- To ensure alignment with the needs of the local entity:
 - To work with VLCT and VECAN to connect with and educate local entities regarding their needs and opportunities (including their willingness to utilize different program offerings such as bonds or leases for energy upgrades);
- To assess financing opportunities:
 - To work with the appropriate state agency to assess the opportunities for a Master Lease (and to discuss this with the North Hero-based firm, Municipal Leasing Consultants for stakeholder feedback)
 - To discuss with the Bond Bank the details of a potential Green Bond or other bond structure
- To assess project management opportunities:
 - To work with the efficiency utilities and SEMP to identify a sampling of project costs and savings to estimate a potential reasonable “fee” for project management support;
 - To research possibilities for “one-time” funds to set up the initial program pilot;
 - To conduct initial conversations with select ESCOs to determine their willingness/interest in engaging more deeply with Vermont (and potentially on smaller projects)

Certainly, the potential next steps listed above also require “the necessary encouragement, leadership, and resources” to pave a path forward – but the reward is real and valuable: financial and energy savings shared by all Vermonters.

VIII. Conclusion

Vermont towns and cities have completed a variety of energy-related projects, but there is far more that can be done. When asked what would help them to complete more projects, local staff and decision-makers answered resoundingly that financial and project management support would not only be welcome, it would be critical. Meanwhile, Vermont has a variety of tools, both financial and non-financial, available for local entities to utilize.

However, for towns with few or no staff (or, with no staff with energy expertise), understanding where to begin to develop an energy baseline, identify and prioritize energy savings opportunities, select a vendor to provide the energy services, identify and implement a mechanism to pay for the energy project, oversee the project and confirm the savings occurred – is simply a daunting process. Similarly, while Vermont has a variety of financing products available to local towns and municipalities, these

³⁷ <https://database.aceee.org/state/energy-savings-performance>

require financial acumen, project oversight, and depending on the financial product selected (e.g. a bond), political capital to convince voters to approve the expenditure.

The lessons from other states provide Vermonters with a variety of potential solutions to meet the gaps identified by local towns and cities, from financing support to project management support. Now comes the next challenging step: working with the stakeholders and tools that currently exist in Vermont to identify and implement a strategic and efficient, yet simple and clear, pilot approach that leverages the strengths of the Green Mountain state (from the Vermont Bond Bank to VECAN, VLCT, our efficiency and energy utilities and SEMP) and coordinates them with the funding and resources currently available.

IX. Appendices

Washington State Department of Enterprise Services: Energy Savings Performance Contracting Guidelines for Public Agencies in Washington State

Washington State Department of Enterprise Services: Energy Savings Performance Contracting Program Process Description

State of Virginia: Treasury Board's Energy Leasing Program

State of Connecticut: Master Financing Agreement – Guidance for Municipalities

State of Connecticut: Energy Savings Performance Contract – Template

State of Rhode Island: Score Sheet for Energy Efficiency Projects

State of Rhode Island: Score Sheet for Renewable Energy Projects

State of Colorado: Memorandum of Understanding between the CEO and Facility Owner

State of Colorado: Overview and Selection Process Guidance

State of Colorado: RFP Template

State of Colorado: Cost and Pricing Template

State of Colorado: List of Potential Interview Questions

State of Colorado: ESCO Proposal Scoring Tool

Energy Savings Performance Contracting

**Guidelines for
Public Agencies in
Washington State**

Revised December 2015

**Washington State Department of
Enterprise Services
Facilities Division – Energy Program**



DES Contacts

For questions or assistance interpreting these guidelines, contact:

Washington State Department of Enterprise Services
Division of Engineering and Architectural Services – Energy Program
1500 Jefferson Street, SE
PO Box 41476
Olympia, WA 98504-1476

<http://des.wa.gov/SiteCollectionDocuments/Facilities/EPC/ESPCGuidelines.pdf>

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Appendix 1 List of Acronyms used

Appendix 2 Guidance for agencies that do not use energy savings performance contracting

1. Energy Savings Performance Contracting

Energy Savings Performance Contracting (ESPC) means contracts where payment is conditional on achieving savings specified by a contract. ESPC is a method of identifying, implementing and financing energy and utility efficiency projects at public facilities. By leveraging utility savings along with using grants, utility rebates and capital dollars, projects can typically be funded within existing operating budgets. ESPC in Washington State relies on a working partnership, established by a contract between the client agency, the Department of Enterprise Services (DES) Energy Program and an energy services company (ESCO).

ESPC shares many similarities with conventional public works design and construction practices. However, there are some distinct differences between ESPC and the design, bid, build (DBB) process. ESPC can provide many opportunities to a client agency installing energy efficiency equipment that are not otherwise available when using the DBB process. The ESCO assumes the construction and performance risk for the project.

Some advantages to ESPC over traditional DBB for procuring energy efficiency equipment include:

- The ESCO provides a guaranteed maximum construction cost.
- Third-party financing is available, which allows the client agency to construct projects sooner. Some public works projects can take as long as six years to complete: identifying the project and requesting funding in the first biennium; designing in the second biennium; and, constructing in the third biennium. Using ESPC, a similar project can be completed in 18 months or less.
- By using the State Treasurer or third-party financing for procuring energy efficiency equipment, the client agency can leverage limited capital dollars for more pressing building improvements. Combining such financing with capital dollars allows the client agency to leverage capital appropriations or bonds, essentially doing “more with less.”
- ESPC maximizes utility financial participation in the project.
- ESCO selection is based on qualifications. Since the ESCO also provides general contracting services, the client agency is also selecting the highest qualified general contractor, rather than the low-bid contractor.
- Building audit findings must meet the client agency’s cost effectiveness criteria or there is no cost for the ESCO’s audit services.
- The ESCO is the single point of accountability from audit through design, construction and commissioning. This reduces the uncertainty of identifying a responsible party when design or construction issues arise.
- Commissioning is an integral component of ESPC since the ESCO is required to guarantee the energy savings and equipment performance.
- The ESCO provides a guarantee of energy savings and reimburses the client agency for any savings shortfalls.
- ESCO’s measurement and verification (M&V) services provide the client agency with assurance that equipment will perform for the life of the agreement.

2. Energy Services Companies Selection

a) Energy Services Company Definition

An ESCO is an energy consultant who engages in performance-based contracting with a client agency to develop and install measures that reduce energy and water consumption and/or costs in a technically and financially viable manner. ESCOs provide a range of professional services, including energy auditing, determination of client baseline energy consumption, multi-discipline engineering design, project construction management, financial and risk analysis and management, measurement of energy savings and analysis of impact, commissioning of installed project elements, facilitation of financing, seeking other available funding sources (utility rebates, grants), and maintenance and operations training for new or renovated systems. For projects they initiate and design, ESCOs provide guaranteed maximum project cost, guaranteed minimum quantity of energy savings and guaranteed equipment performance. Guaranteed savings and performance are based on detailed, site-specific information collected in an investment grade audit (IGA) (see Section 6). ESCOs must have the financial capability to fund the acquisition and installation of projects, and must be willing to wait for reimbursement to come from the energy savings over the term of the investment. ESCO companies must hold a valid general contractor's license in the state of Washington.

b) Department of Enterprise Services Energy Program

ESCO Qualifications: RCW 39.35A.050 directs DES to maintain a registry of energy service contractors. Every two years the DES Energy Program establishes a pre-qualified list of ESCOs capable of providing energy services to public facilities in the state for the upcoming biennium. To qualify, ESCOs respond to a Request for Qualifications (RFQ), which is advertised in the Daily Journal of Commerce in Seattle and Portland, and the Spokesman Review in Spokane. The DES Energy Program evaluates the companies' qualifications and experience then offers an agreement to those deemed qualified. ESCOs that execute this agreement become eligible to develop energy-related projects on behalf of Washington public facilities under DES's ESPC Program. The process satisfies public works selection requirements and enables public-sector clients to avoid having to conduct duplicative, individual public works selection processes.

DES's Contracting Process: Public-sector agencies choosing to participate in energy savings performance contracting work through DES's ESPC program first establish an inter-local agreement with DES pursuant to Chapter 39.34.080 RCW. This agreement sets up a contractual relationship between the two public agencies that, once authorized by the governing bodies of each party, allows each agency to perform any governmental service, activity or undertaking that the law authorizes.

ESCO selection process: DES's client agencies are permitted to select any company from the pre-qualified list as long as they agree to participate in DES's program. These clients may use whatever selection process that complies with their own policies and procedures.

DES energy engineers are assigned to work with client agencies based either on their locality or client organization. As part of the selection process, the client agency may choose to obtain from DES's assigned energy engineer the following background information:

- (1) A list of ESCOs with contact information and website links; and
- (2) The full statement of qualifications and sample energy audits submitted by the ESCOS for evaluation by DES's pre-qualification selection committee.

If the client agency chooses to interview firms as part of the selection process, the energy engineer may sit in on ESCO interviews but does not participate in the final decision-making process. The client agency makes the final ESCO selection.

c) Public Agency RFP Process for ESPC Contracting

Chapter 39.35A RCW provides the authority for municipalities to engage in the public work of performance-based contracts for water conservation, solid waste reduction, and energy equipment.

RCW 39.35A.010 states:

"Therefore, the legislature declares that it is the policy that a municipality may, after a competitive selection process, negotiate a performance-based energy contract with a firm that offers the best proposal."

RCW 39.35A.020(4) defines energy performance contracting by municipalities. It states:

"Performance-based contract" means one or more contracts for water conservation services, solid waste reduction services, or energy equipment and services between a municipality and any other persons or entities, if the payment obligation for each year under the contract, including the year of installation, is either: (a) Set as a percentage of the annual energy cost savings, water cost savings, or solid waste cost savings attributable under the contract; or (b) guaranteed by the other persons or entities to be less than the annual energy cost savings, water cost savings, or solid waste cost savings attributable under the contract. Such guarantee shall be, at the option of the municipality, a bond or insurance policy, or some other guarantee determined sufficient by the municipality to provide a level of assurance similar to the level provided by a bond or insurance policy."

This means that these performance-based contracts must include reasonable savings attributable to the energy or water conservation measures being installed. Additionally the payment must be set as a percentage of or be guaranteed to be less than the annual energy cost savings.

RCW 39.35A.30 provides guidance for municipalities to select their own ESCO for a performance based contract:

(1) Each municipality shall publish in advance its requirements to procure water conservation services, solid waste reduction services, or energy equipment and services under a performance-based contract. The announcement shall state concisely the scope and nature of the equipment and services for which a performance-based contract is required, and shall encourage firms to submit proposals to meet these requirements.

(2) The municipality may negotiate a fair and reasonable performance-based contract with the firm that is identified, based on the criteria that are established by the municipality, to be the firm that submits the best proposal.

(3) If the municipality is unable to negotiate a satisfactory contract with the firm that submits the best proposal, negotiations with that firm shall be formally terminated and the municipality may select another firm in accordance with this section and continue negotiation until a performance-based contract is reached or the selection process is terminated.

RCW 39.04.010, the definitions section of the public works statute, defines a municipality as follows:

"Municipality" means every city, county, town, port district, district, or other public agency authorized by law to require the execution of public work, except drainage districts, dike districts, dike and drainage improvement districts, drainage improvement districts, dike improvement districts, consolidated dike and drainage improvement districts, consolidated drainage improvement districts, consolidated dike improvement districts, irrigation districts, or other districts authorized by law for the reclamation or development of waste or undeveloped lands.

Within this context, the public works statutes, including the authorities granted under RCW 39.35A, apply to all cities, counties, towns, port districts or other public agencies.

Contracts for performance-based energy work may be executed by public agencies after advertisement and competitive selection.

3. Cost-effectiveness Criteria

RCW 39.35C.010 provides that ESPC contracting for State agencies and K-12 schools under the DES Energy Program must be cost-effective. It states:

"Cost-effective" means that the present value to a state agency or school district of the energy reasonably expected to be saved or produced by a facility, activity, measure, or piece of equipment over its useful life, including any compensation received from a utility or the Bonneville Power Administration, is greater than the net present value of the costs of implementing, maintaining, and operating such facility, activity, measure, or piece of equipment over its useful life, when discounted at the cost of public borrowing.

This means that projects may be considered cost-effective if they result in a net-positive present value over their economic lifetime. For purposes of determining economic lifetime, ESCOs rely on generally accepted engineering practices established by entities such as the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE), or other national or international standard setting bodies. The lifecycle cost analysis can be completed using tools similar to the one provided by the Washington Office of Financial Management (OFM)¹

¹ The OFM life-cycle cost model tool may be found at: <http://www.ofm.wa.gov/budget/facilities/costanalysis.asp>

The DES ESPC Program operates under the authority of Chapters 39.35A and 39.35C RCW. DES works with the client agency to set the cost-effectiveness criteria that will be used for their projects. The client agency also may establish supplementary cost-effectiveness criteria, including but not limited to: simple payback, budget neutrality, or maximum financing term.

The following factors should be considered in developing cost-effectiveness criteria:

- The client agency may use a combination of funding and payment options to discharge its obligations under the contract for ESCO services, such as:
 - ESCO financing;
 - ESCO arranged Municipal Lease financing;
 - State Treasurer's lease/purchase or LOCAL Program^[2];
 - Other third-party financing (banks, etc.);
 - Energy cost savings, utility cost savings, and approved O&M savings to pay off any of the above debt structures;
 - Grants, loans and/or incentives from utilities or other funding sources; and
 - The owner's capital budget or any other funds at the owner's discretion.
- The financing term may not exceed the economic life of the energy efficiency measures (EEM), unless otherwise approved by the client agency^[3].
- Not more than 90% of the energy cost savings should be used to repay the financing, unless otherwise approved by the client agency.
- Up to 100% of utility grants may be used to cover project costs or to repay the financing agreement.
- Labor or maintenance cost savings should not be included in energy cost savings for the purpose of determining cost-effectiveness, unless specifically approved by the client agency. These cost savings typically represent costs for purchased parts and service contracts, rather than internal labor cost savings.
- The total cost of implementing the EEMs will include the cost of the investment-grade audit, preparation of the energy services proposal, project design, construction, administration, DES's management fee (if applicable), commissioning, subcontractor bidding, bonding, insurance, overhead and profit, permits, taxes, client agency training, cost and saving guarantees, and other costs that may be agreed to by the ESCO and the client agency.
- The client agency's future period cash flow including utility bill savings, utility incentive contributions, cost of measurement and verification services, cost of EEMs, and financing

^[2] Chapter 39.94 RCW authorizes the State Treasurer to enter into financing contracts for the state or on behalf of another agency for the use and acquisition for public purposes of real and personal property. The State Treasurer's state agency lease/purchase program details can be found at

<http://www.tre.wa.gov/government/leasePurchaseProgram.shtml>

^[3] The State Treasurer's Office requires that the finance term of any loan does not exceed the useful life of the equipment financed. The Office of Financial Management's useful life table (Chapter 30.50 of the State Administrative & Accounting Manual) can be found at <http://www.ofm.wa.gov/policy/30.50.htm>

should be neutral or positive with respect to the client agency's "before project" cash flow. Future utility bill savings are based on the ESCO's guarantee of savings.

- Current utility rates should be used to calculate energy and utility cost savings. Energy and utility cost inflation factors should not be used without the client agency's expressed approval.
- Identify whether proposed measures must be cost-effective on a stand-alone basis or whether they will be considered as a bundled total. Under the bundling consideration, measures are considered to meet the economic criteria even though some individual measures with high paybacks are supported by other measures with low paybacks.

Occasionally a client agency will have additional criteria that must be met, such as shortened facility lifetime due to planned replacement, limitations on borrowing capacity, and special conditions associated with federal or state grants used to pay for a project.

4. Preliminary Audit

The preliminary audit, conducted by the ESCO in consultation with the client's facility staff, evaluates the facility to determine the likelihood that further investigation and analysis will yield a project of cost-effective EEMs. The ESCO, DES (if applicable) and the client agency use the preliminary audit and subsequent proposal process to ensure the project meets the owner's cost-effectiveness criteria and addresses most or all of the facility's needs.

For projects that are managed under DES's ESPC Program, this is the point where the ESCO and the DES energy engineer begin working together and continue to work together throughout the remainder of the project. The benefits of this relationship for the ESCO are the reduced costs for preliminary audit development, another technical expert to help develop energy efficiency measure ideas, and streamlining of the project development so it will move through the client agency's approval process faster. DES can likewise assist the client agency to present the project to internal decision makers, explain contracting and invoicing requirements to accounting staff, or guide the client agency to develop applications for grant fund that may be available from state or federal sources.

Audit Preparation/Development: Prior to conducting the preliminary audit, the client agency provides the following information about the facility to the ESCO:

- ***Utility billing information*** (at least for the most current 12-month period, but preferably for the past two years). Utility data may include electricity, natural gas (i.e., all heating fuels routinely purchased including propane, diesel, or other petroleum products, biomass, etc.), water and waste billing records as appropriate.
- ***Facility operations/capacity*** (e.g., operating schedules, architectural drawings or plans, square footage and average facility occupancy, information regarding on-going maintenance costs such as service contracts, information regarding planned facility upgrades or remodels, etc.)

These data sets are analyzed to establish the energy use intensity (EUI) of the facility. This represents a measure of building energy efficiency and is calculated as total energy consumed per year (in Btus) divided by building square footage (Btu/sq. ft./yr.).

During development of the preliminary audit, methods for establishing energy baseline data measurement and verification (M&V) will be proposed by the ESCO and reviewed and agreed on by DES (if applicable) and the client agency.

Audit Report: The preliminary audit report forms the basis for the ESCO's investment-grade audit proposal where a scope of work is identified and an audit cost is negotiated. It includes:

- Systems, facilities and/or measures to be analyzed and evaluated in the more detailed investment-grade audit. These measures may be identified as:
 - (1) fully cost-effective in that the energy savings will repay the investment within the measure's useful lifetime;
 - (2) cost-effective if the client agency has additional capital to invest other than the borrowed funds; and
 - (3) necessary for safe and comfortable operation of the facility but probably not meeting basic cost-effectiveness criteria for simple payback.
- Equipment data-logging opportunities when time-appropriate. (It is difficult, for instance, to get a good representation of cooling equipment operation in the winter or true occupancy patterns of a school over the summer.) To establish the project, data collection on parameters such as equipment run hours, space and system temperatures, air flow rates, and facility occupancy may ultimately be used to create building energy use models or support other analyses by the ESCO.

The ESCO, DES (if applicable) and the client agency use the preliminary audit and subsequent proposal process to verify that a project appears to meet the owner's cost-effectiveness criteria and addresses most or all of the facility's needs.

5. Proposal for the Investment-grade Audit and the Energy Services Proposal

A proposal for an investment-grade audit (IGA) and energy services proposal (ESP) are developed based on the preliminary audit, which identifies potential cost-effective EEMs. The IGA proposal should include at least the following components:

- a) ***Scope of the IGA:*** Include: (1) a list of any facilities that will be investigated in the audit. Energy consuming systems within a given facility need to be clearly defined directly or by exclusion of systems not to be investigated; (2) the area, in square feet, of the facilities to be investigated; (3) any additional deliverables beyond the ESP, (e.g., Greenhouse Gas Inventory creation or Energy Star Benchmarking establishment).
- b) ***Timeline for completing the IGA:*** Identify major milestones, including client agency's decision points for individual EEMs and other identified information.

- c) ***Cost of the IGA:*** Methods to determine costs include: (1) dollar-per-square-foot basis. The \$/sq. ft. cost will typically be higher for smaller square footages or more complex systems; and (2) time and materials basis. Either of these methods should identify a not to exceed (NTE) cost.
- d) ***Preliminary measurement & verification (M&V) plan:*** Indicate the likely M&V method and timetable. The plan should be based on the International Performance Measurement and Verification Protocol (IPMVP^[4]). For the M&V that will occur during the IGA phase, the proposal must indicate when in the timeline that will occur. To the degree possible, seasonal equipment energy use should be measured during the appropriate season. If measurement is conducted outside of the normally appropriate season (e.g. heating system measurement during the summer), the forced loading requirements needed to simulate normal seasonal operation should be clearly defined in the plan.
- e) ***Other documentation or exclusions:*** Identify any other information needed for the IGA, including (1) owner supplied documentation or assistance; and (2) exclusions or limitations to the range of systems being analyzed or the scope of technical analyses expected from the ESCO in the IGA. These must be clearly identified up front and agreed to by the parties.
- f) ***Energy services proposal:*** Define what will be included in the energy services proposal once the IGA is complete. All deliverables need to be clearly identified.

6. Investment-grade Audit

Professional Services Contract/Agreement: Once the ESCO, DES (if applicable) and the client agency agree on the energy savings potential in the facility, and an investment-grade audit proposal has been accepted, the next step is to negotiate a contract for the professional services necessary to complete the work. As described above, the cost of the IGA may be based on a value per square foot of audited facilities or by other means. The professional services contract should clearly specify the services to be provided, the not-to-exceed cost for these services, and the deadline for completion.

For projects where DES acts as the client agency's representative, the energy engineer reviews the IGA proposal and negotiates the cost of the audit prior to it being presented to the client agency. With the client agency's approval, DES then establishes a professional services agreement with the ESCO for the IGA.

Conducting the IGA: The ESCO then conducts a detailed investment-grade energy audit of the facility and submits an energy services report and an energy services proposal to the client and DES (where applicable) for review and approval.

^[4] <http://www.nrel.gov/docs/fy02osti/31505.pdf> Note that M&V plans can employ Options A, B, or C or a combination of the options as appropriate. Option A is typically used for lighting system improvements; Options B and C are used for other types of EEMs.

The investment-grade energy audit is conducted to analyze all cost-effective EEMs for systems such as lighting, HVAC equipment, building envelope, steam, chilled water, domestic hot water and other water using systems, building controls, energy generation and distribution, and waste management systems. The audit is based on detailed analysis of the existing systems, including instantaneous measurements of system performance parameters and, wherever possible, detailed data logging of system performance. The audit includes an evaluation of the economic performance and investment value of the EEMs.

The following are the potential outcomes of the investment-grade audit when completed under the DES Energy Program:

- a) If a facility does not have EEMs that meet the cost-effectiveness criteria established by the client agency, there is no cost to the client for the audit. This is true unless the client agency, DES (if applicable) and the ESCO agree to other arrangements. In that case these special arrangements must be reflected in the contract documents.
- b) If the ESCO identifies cost-effective measures and the client agency decides not to proceed, the ESCO will be reimbursed for the audit. If applicable, the DES Energy Program will also be paid a pre-determined termination fee.
- c) If the ESCO identifies cost-effective measures and the client decides to proceed, an energy services proposal is completed and presented.

7. Energy Services Proposal

The energy services proposal (ESP) contains the following components:

ESCO Deliverables

- ***Descriptions of the client agency's facility and the buildings and systems that will receive ESCO equipment and services.*** These must include information on operating conditions (i.e. hours of operation, temperatures, lighting levels, etc.); identification of problem areas (i.e. indoor air quality, hazardous materials, maintenance etc.); and other findings that will impact the costs or savings that will be achieved by the project.
- ***Facility baseline energy consumption*** for at least a one-year calendar period. The baseline data is used to calculate the energy savings and determine the methodology for measuring and verifying the savings. The baseline data is also used to determine the cost of energy that will be used in the calculation of energy cost savings. If water savings or maintenance savings are included in the project, the baseline data also includes water cost and consumption as well as maintenance costs and frequency.
- ***Description of the EEMs*** proposed for installation and EEMs that have been analyzed but disqualified because of cost or other constraints. The client agency may use this information for future projects or for alternative financing beyond that offered by the ESCO.
- ***Recommendations for replacement of existing equipment, and improvements to the existing equipment and operating conditions.*** Some of these improvements can result in

low or no-cost operating savings that can be used to pay for higher cost measures where measure bundling has been agreed to within the cost-effectiveness criteria.

- **Detailed schedule for project completion**, including client agency facility schedules that affect the times that are available or not available for construction activity.
- **Services that the ESCO will be performing or will cause to be performed during the course of the project.** These services may include but not be limited to: engineering design, construction management, preparation of operations and maintenance procedures, training of facility personnel on new equipment or procedures, project commissioning, warranty services and equipment maintenance. These services will be tailored to the project, the needs of the facility, the capabilities of the client's maintenance staff and the chosen financing methods.
- **Verification of the comfort conditions that will be maintained at the facility.** Standards of comfort for the client agency's facility will be as follows, unless otherwise negotiated:
 - a) Indoor **occupied** temperatures:
 - a. Winter minimum – 70 degrees F
 - b. Winter maximum – 74 degrees F
 - c. Summer minimum – 72 degrees F (where mechanical cooling is employed)
 - d. Summer maximum – 78 degrees F (where mechanical cooling is employed)
 - b) Indoor **unoccupied** temperatures:
 - a. Minimum – 55 degrees F
 - b. Maximum – 85 degrees F (where mechanical cooling is employed)
 - c) Relative humidity (where humidity control is provided)
 - a. Minimum – 40%
 - b. Maximum – 60%
 - d) Minimum outside air per occupant shall be in accordance with American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards and *Washington State Ventilation and Indoor Air Quality Code*.
 - e) Illumination levels shall be as recommended by the Illuminating Engineer's Society of North America (IESNA). Design calculations shall be made for each space, using an 80% lamp depreciation/maintenance factor. Average illumination levels shall be checked in each space after 100 operating hours. Average illumination shall not be less than 12.5% above the design level. For primary and secondary schools, illumination will also meet 1997 WAC 246-366-120 lighting requirements.

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

- **Identification of the nature and extent of the work and equipment that the ESCO will receive from other firms under sub-contract.** The ESP will also identify how these firms will be selected.

- *Determination of the time when title to the ESCO equipment will pass to the client agency.*

Project Financing

The method of financing impacts the scope of the project and the amount of risk that the client agency assumes. Utility funding or grant awards may be used to supplement the project financing. If the ESCO is unable to finance a project through construction completion, including the cost of the IGA, the energy services contract may be terminated at no cost to the client agency.

If the ESCO finances or causes the project to be financed, the client agency will retain the right to buy out the financing agreement at any time. The ESCO must provide the termination value for each year of the authorization, which is based on the method of payment.

Guaranteed maximum construction cost (GMax)

On completion of the project scope, consisting of one or more EEMs, the ESCO develops the guaranteed maximum construction cost (GMax) and the guaranteed minimum energy savings. These guarantees for the project are based on the total project – not on a measure-by-measure basis, unless specified by the owner and agreed to by the ESCO and DES (if applicable).

The ESP details the GMax offered by the ESCO for installation of the recommended EEMs. For DES Energy Program managed projects, open book pricing principles are used for the project. All project construction costs are reconciled at completion, and the client agency only pays the actual cost up to the GMax.

- ***The GMax includes*** the IGA cost, professional design fees, construction management fees, contingency on the construction cost, construction material and labor costs, including payment and performance bonds.
- ***The total project cost includes*** the sales tax on all components plus the DES project management fee, if applicable. Although these latter costs are not guaranteed by the ESCO, they must be included in total project cost to establish overall project cost-effectiveness. Based on a determination of tax liability issued by the Washington Department of Revenue, all components of an ESPC project, including professional services, are subject to applicable Washington State Sales Tax.

Guaranteed minimum energy savings

These are specified in native units of measure for the utility commodity purchased (e.g., electric savings would be in kWh, natural gas in Therms). The energy cost savings expected to result from the installation of the ESCO equipment and ESCO services are based on the baseline energy consumption previously developed. Baseline energy consumption may be adjusted to account for anomalies, code requirements or other issues (e.g., lack of outside ventilation air or recent facilities changes). The calculation methods used to determine the savings will be

explained. This information can then be used to develop the overall M&V plan that will be used to track and verify the savings.

The guaranteed minimum energy savings is translated into dollars based on the current utility tariffs in effect at the time of the ESP. The guaranteed minimum energy savings does not have to equal the calculated energy savings; it can be slightly less to factor in risk associated with the particular EEM. The guaranteed energy savings is negotiated with the client agency and typically will be in the range of 90 to 95% of the calculated value.

Guaranteed equipment performance

Since energy savings is dependent on the performance of the actual equipment installed, performance parameters of the equipment also need to be met (e.g., boiler efficiency, heat pump SEER, control system capabilities.)

Statutory apprenticeship requirements

If the construction cost portion of the project exceeds \$1,000,000, the ESCO must comply with apprenticeship requirements pursuant any and all applicable state and federal requirements.

8. Engineering Design

Final engineering design for ESPC projects is typically contracted to start concurrent with the construction or implementation phase of activity. This is very similar to design/build construction contracting because the IGA has defined the scope of work and a GMax. The ESCO is often the professional engineer and always the general contractor. This methodology minimizes the project risk for a client agency and reduces the delivery schedule by overlapping the design and construction phases of a project. In an ESCO project, the client agency, the agency's other consultants, and the ESCO work together to determine what methods and materials will maximize the client agency's value. The client agency has more opportunity, through design review, to adjust the project without having to re-bid.

The ESCO, working with the client agency's project representative, maintains contact with the utility to maximize utility incentives. Further, the ESCO involves the utility company to the extent necessary to verify energy efficiency improvements consistent with that utility's conservation program requirements.

The ESCO conducts design and construction meetings and manages the selection of contractors and equipment suppliers after consultation with the client agency regarding responsible and acceptable bidders. The ESCO conducts all project meetings and issues those meeting minutes within 3 working days of the meeting. Meeting minutes include all identified issues of concern, identification of those responsible for resolving these issues, and the time period expected for resolution. Unresolved issues should remain open from meeting to meeting until closed or resolved.

When the project design is complete and approved by the client agency and DES (when applicable), the ESCO solicits bids and selects sub-contractors. This bidding process differs from standard public works procurement. The ESCO does not need to publicly advertise or

accept bids from any subcontractor that chooses to respond. Rather, only two or three subcontractors (pre-approved by the client agency and the ESCO) are typically asked to bid the work in each trade. The ESCO is not required to select the lowest bidder if it is deemed detrimental to the performance of the project. ESCOs that have self-construction capability may be allowed to perform/construct their own projects, but are encouraged to seek competitive bids to assure fair market value to the client agency. If the ESCO provides a competitive bid, it should be submitted sealed to the client agency or DES, if applicable, at least 24 hours prior to the deadline for other sub-contractors to submit bids. This maintains fairness and competitiveness between the ESCO and the subs.

The ESCO is responsible for developing, providing, and implementing a project commissioning plan. Operation of all systems and equipment that are modified or installed as a result of the ESCO project should be verified by a qualified commissioning agent. This commissioning agent can work directly for the ESCO or hired as an independent third party, depending on the scope and complexity of the project or by client agency directive.

9. Construction

The ESCO, as the general contractor, has more opportunity to perform on-site investigation (even demolition) to prepare the project site for early installation and start-up of equipment. This reduces overall project duration. RCW 39.35A.040 provides authorization for the project to exclude statutory purchasing requirements. This allows the ESCO to negotiate costs based on best value, which doesn't require advertisement for bidding and awards the lowest bidder. ESPC projects have to follow all other state statutes (including RCW 39.04 where not superseded by RCWs 39.35A and 39.35C) with respect to performance contracting projects to minimize risks to public facilities, the public and the ESCO.

The ESCO shall meet deadlines for project completion and invoicing to avoid delay in client agency financing. All contract invoices shall have a detailed breakdown of the schedule of values and back-up documentation of the expenditures from the subcontractors. Subcontractor's invoices should clearly reference the project by name or number. Contract invoices shall itemize all materials and labor costs, even if that subcontractor is a subsidiary of the ESCO.

“Open book” pricing – a cornerstone of DES’s ESPC Program: “Open book pricing” means substantiation to support construction costs, including labor, materials, permits and other expenses. Construction cost is defined as the actual cost of purchasing and installing the ESCO equipment, as demonstrated by the installation price quotes or construction contracts. This means that ESCO substantiation will include documentation details to support review of invoices for reasonableness, accuracy and completeness.

10. Commencement of Energy Savings

The “Notice of Commencement of Energy Savings” is a formal written notification to the client agency and DES (if applicable) that the ESCO has substantially completed installation of ESCO equipment and/or provided ESCO services and commissioning. The ESCO is confirming that EEM construction is complete and energy savings are being realized. This starts the equipment warranty period.

11. Project Closeout

The ESCO will schedule the final inspection of the project with the client agency and DES (if applicable). The serving utility(s) shall be invited as appropriate. If the final inspection identifies items that are not completed or that require correction, a “punch list” will be developed. The punch list should only contain minor items and nothing of a significant nature.

The ESCO will satisfy warranty items as required. The ESCO will measure project performance and collect data to determine energy savings in accordance with the established M&V plan.

Any malfunctioning equipment that was installed or modified in the course of the project will be returned to its full operating condition by the ESCO as soon as is practicable.

12. On-going Measurement and Verification (M&V)

After the project is constructed and the notice of commencement of energy savings has been issued, the on-going M&V period begins. At a minimum, M&V needs to be conducted to verify that the guaranteed energy savings actually occur. The energy savings guarantee by the ESCO typically lasts only during the period of on-going M&V. The proposed length of the on-going M&V should be identified in the ESP.

The frequency of M&V reporting can vary depending on the needs of the client agency or the project. M&V reporting can be done multiple times per year or at a minimum annually. The client agency should balance its need for information about the actual energy savings against the cost for the M&V reporting interval selected.

For projects developed and delivered through the DES Energy Program, the ESCO is required to recommend to the client agency whether to continue or discontinue M&V reporting beyond the first 12 months post-installation, consistent with the IPMVP. The client agency and DES will then evaluate the recommendation and, if appropriate, DES will contract with the ESCO for any ongoing M&V. Client agencies are encouraged to have M&V performed for the length of the financing term to extend the length of the energy savings guarantee to fully cover the cost of financing the project.

The M&V report includes:

- ***an executive summary*** that gives a brief description of the EEMs installed and whether the guaranteed savings were achieved.
- ***the body of the report***, including:
 - calculation of the energy savings verified for each measure.
 - a brief description of any changes to the facilities identified. If these changes have an impact on the verified energy savings, this needs to be identified and the impact calculated.
 - any other deliverables that were proposed, such as greenhouse gas reduction calculations or building energy performance benchmarks.

- all physical measurements that were performed (e.g., boiler combustion test results, motor runtime logs). If necessary, these can be attached via appendix to the main report.

The guaranteed minimum energy savings identified in the ESP and the verified actual energy savings should be identified in tabular form for easy reference by the client agency. The energy savings should be:

- identified in the native unit of measure for each utility commodity, such as kWh or Therms, for both guaranteed and verified;
- translated into utility bill dollar savings; and
- denoted in dollars, using the energy rates in effect at the time of the report. This will help the client agency understand the actual impact on their budget.

The comparison of actual to guaranteed savings should be denoted using the energy rates in effect at the time of project implementation.

The report should indicate what remedies the ESCO will provide if the guaranteed savings are not being met. Specify whether and by when the physical aspects of the project that led to the loss of savings will be corrected. Specify how the ESCO will reimburse the client agency for the identified difference between the verified savings and the guaranteed level of savings. Specify the timing of when the ESCO will make the reimbursement to the client agency.

If the project was not done through DES, the report must be delivered to the client agency within 30 days of the end of the M&V period for review and acceptance. Otherwise, the report is submitted to DES for review within 30 days. DES reviews the report and forwards it to the client agency when approved. If there are questions or concerns, DES will return it to the ESCO for corrections and resubmittal.

Appendix 1

List of Acronyms Used:

ASHRAE:	American Society of Heating Refrigerating and Air-Conditioning Engineers
Btu:	British thermal unit
Btu/sq. ft./yr.:	British thermal unit per square foot per year
COP	Certificate of Participation (Washington State Treasurer's program)
DBB	Design-Bid-Build
EEM:	Energy Efficiency Measure
ESCO:	Energy Services Company
ESP:	Energy Services Proposal
ESPC:	Energy Savings Performance Contracting
EUI:	Energy utilization index
DES:	Washington State Department of Enterprise Services
GMax:	Guaranteed maximum construction cost
HVAC:	Heating, ventilating and air-conditioning
IESNA	Illuminating Engineer's Society of North America
IGA:	Investment-grade Audit
IPMVP:	International Performance Measurement and Verification Protocol
KW:	Kilowatts
kWh:	Kilowatt hours
LOCAL:	Washington State Treasure's Local Option Capital Asset Lending Program
M&V:	Measurement and Verification
MACC:	Maximum allowable construction cost
NTE:	Not to exceed
O&M:	Operation and Maintenance
OFM	Washington Office of Financial Management (http://www.ofm.wa.gov)
RCW:	Revised Code of Washington
RFP:	Request for Proposals
RFQ	Request for Qualifications
SEER:	Seasonal Energy Efficiency Rating
\$/sq. ft.:	Dollars per square foot

Appendix 2

Guidance for agencies that do not use energy savings performance contracting

This appendix is for agencies that choose to (a) use the traditional design, bid, build process rather than energy savings performance contracting; and (b) want to submit to the Department of Commerce (Commerce) for energy and operational cost savings improvements to municipal, public school district and higher education facilities.

1. Energy Consultant Selection

The selection process for the professional services to initiate and conduct an energy audit shall be consistent with RCW 39.80 (contracts for architectural and engineering services). The agency (both state and local agencies and special districts) is required to publish in advance its requirement for professional services. This shall include a concise statement of the general scope and nature of the project or work for which the services are required, and the address of a representative of the agency who can provide further details.

An agency may comply with this section by:

- a) Publishing an announcement on each occasion when professional services provided by a consultant are required by the agency; or
- b) Announcing generally to the public its projected requirements for any category or type of professional services.

2. Investment Grade Audit Statement of Work

A statement of work for the investment-grade audit (IGA) is based on RFP issued by the municipality and addresses potential EEMs associated with the systems and facilities the consultant was hired to evaluate. It should include at least the following components:

- the scope of the IGA;
- timeline for completing the IGA;
- cost of the IGA;
- preliminary measurement and verification (M&V) plan;
- other information that the agency needs to provide the energy consultant.

The scope of the IGA should include a list of the facilities that will be investigated in the audit. If only select energy consuming systems in a given facility are to be investigated, they need to be clearly defined directly or by exclusion of systems not to be investigated. The scope should include the number of square feet of the facilities to be investigated. Any additional deliverables beyond the ESP, e.g., Greenhouse Gas Inventory creation or Energy Star Benchmarking establishment should also be identified.

The timeline for completing the IGA should identify major milestones, including decision points for the agency to identify individual EEMs they would like to pursue and when certain information is due.

The cost of the IGA should be established using one of the following methods:

- dollar-per-square-foot basis: The \$/sq. ft. cost will typically be higher for smaller square footages or more complex systems being investigated.
- time and materials basis.
- negotiated lump sum.

These methods should result in a not to exceed (NTE) cost for the IGA.

The preliminary M&V plan should indicate:

- the likely method of measurement and verification that will be used, and should be based on the International Performance Measurement and Verification Protocol (IPMVP^[1]).
- when M&V will occur (pre-installation, post-installation, and on-going). The M&V that occurs during the IGA phase must be indicated on the timeline. Seasonal equipment energy use should be measured during the appropriate season as much as possible. Otherwise the forced loading requirements needed to simulate normal seasonal operation should be clearly defined in the plan.
- a recommendation to the client agency whether to continue or discontinue M&V reporting beyond the first 12 month period post-installation, consistent with the IPMVP.

Other necessary information, documentation or assistance needed by the energy consultant in the performance of the IGA must be identified in the statement of work. In addition, any exclusions or limitations must be clearly identified up front and agreed to by all parties. These may include things such as the range of systems being analyzed or the scope of technical analysis expected to be employed by the energy consultant in the IGA.

3. The Investment Grade Audit Report

The IGA is conducted to analyze all EEMs for the systems identified in the IGA proposal. These may include, but are not limited to: lighting, HVAC equipment, building envelope, steam, chilled water, domestic hot water and other water using systems, building controls, energy generation

^[1] <http://www.nrel.gov/docs/fy02osti/31505.pdf> Note that M&V plans can specify Options A, B, or C or a combination of the options. Option A is typically used for lighting system improvements whereas Options B and C are used for other types of EEMs.

and distribution, and waste management systems. The IGA Report includes an evaluation of the energy performance and investment value of the EEMs.

The agency and their consultant select EEMs from the finalized IGA. The consultant develops a project proposal that will be included in the Commerce grant application. The finalized project proposal contains:

- descriptions of the facility, buildings, and systems that will receive energy savings equipment. The descriptions will be complete with information on operating conditions (i.e. hours of operation, temperatures, lighting levels, and etc.); identification of problem areas (i.e. indoor air quality, hazardous materials, maintenance etc.); and other findings impacting the costs or savings that will be achieved by the project.
- baseline energy consumption for at least a one-year calendar period. The baseline data will be used to calculate the energy savings and to determine the methodology for measuring and verifying the savings. The baseline data will also be used to determine the cost of energy that will be used in the calculation of energy cost savings. If water savings or maintenance savings are going to be included in the project, the baseline data will also include water cost and consumption as well as maintenance costs and frequency. Baseline energy consumption must be based on actual energy records. Commerce does not accept “elevated” baselines based on the energy that would have been consumed had different factors been present (e.g. ventilation rates that meet current code requirements, etc.).
- recommendations for replacement of existing equipment and improvements to the existing equipment and operating conditions. Some of these improvements can result in low or no cost operating savings which can be used to pay for higher cost measures.
- identification of the energy savings and energy cost savings that are expected to result from the installation of the energy savings equipment, based on the baseline energy consumption previously developed. The outlined calculation methods used to determine the savings can then be used to develop the overall M&V plan used to track and verify the savings. The energy savings is determined in native units of measure for the utility; (e.g., electric savings would be in kWh, natural gas in Therms). The energy savings would then be translated into dollars based on the current utility tariff in effect.

The Maximum Allowable Construction Cost (MACC) is developed by the energy consultant once a final project has been identified consisting of one or more EEMs. The MACC has several components. These may include: the IGA cost, design fees, construction management fees, construction costs (including payment and performance bonds), plus sales tax, and construction contingency.

The finalized IGA Report will also contain:

- ***a detailed schedule for project completion.*** The schedule will also identify facility schedules that affect the times that are available or not available for construction.

- *a description of the equipment warranties.* The energy savings depends on the performance of the actual equipment installed. Therefore, performance parameters of the equipment also need to be identified, (e.g., boiler efficiency or heat pump SEER).
- *a professional stamp and signature* by the engineer of record for the project.

Note: A sample finalized investment grade audit content list is included at the end of this appendix.

4. Engineering Design

Final design for EEM projects is developed before the project is put out to bid. The energy consultant is usually the professional engineer who designs the project.

The energy consultant or agency maintains contact with the utility to maximize utility incentives, and to verify energy efficiency improvements consistent with that utility's conservation program requirements.

The agency manages design and construction meetings and the selection of contractors and equipment suppliers.

When the project design is completed, the agency will solicit bids in accordance with RCW 39.04.

A construction contingency of up to 10% is recommended for unforeseen conditions.

The energy consultant shall be responsible for developing, providing, and implementing a Commissioning Plan.

5. Construction

Construction will be in accordance with RCW 39.04, including requirements for competitive bidding, use of minority and women's business enterprises, records retention, etc. and employ a licensed engineer to oversee the construction.

If the construction cost portion of the project exceeds \$1,000,000, the contractor must comply with RCW 39.04.320, minimum apprenticeship participation.

6. Project Closeout

The construction contractor shall schedule the final inspection of the project with the agency's facility representative. The serving utility should be invited as appropriate. If the final inspection identifies items that are not completed or that require correction a "punch list" will be established. The punch list should only contain minor items and nothing of a significant nature. If the final inspection confirms the project is complete, the substantial completion date

can be set for the general one-year warranty period. The contractor shall satisfy warranty items as required.

The agency's representative shall complete and submit a Notice of Completion of Public Works Contract and submit it to the Department of Labor and Industries, the Department of Revenue and the Employment Security Department².

7. On-going Measurement and Verification

After the project is constructed the on-going M&V period begins. Projects that do not use energy savings performance contracting should still verify energy and operational cost savings.

Verification may be conducted by a third party entity or by the energy consultant originally hired to complete the IGA Report. The person conducting the verification should base their work on the methodologies detailed in the International Performance Measurement and Verification Protocol.

The frequency of M&V reporting can vary depending on the needs of the agency or the project. M&V reporting can be done multiple times per year or at a minimum annually. The agency should balance its need for information about the actual energy savings against the cost for the M&V reporting interval selected.

The M&V report includes:

- ***an executive summary*** that gives a brief description of the EEMS identified and if the energy savings were achieved.
- ***the body of the report***, containing calculation of the energy savings verified for each measure; a brief description of any changes to the facilities; identification and calculation of impacts of these changes on the verified energy savings; other deliverables that were proposed (e.g., greenhouse gas reductions); and all physical measurements that were performed (i.e., boiler combustion test results, motor runtime logs). If necessary, these can be attached via appendix to the main report.

The estimated energy savings identified in the finalized IGA Report and the verified energy savings should be identified in tabular form for easy reference by the agency. The savings should be identified in the native unit of measure, such as kWh or Therms, for both estimated and verified. The savings should also be translated into dollar savings. The comparison of actual to estimated savings should be denoted using the energy rates in effect at the time of project implementation. To help the agency understand the actual impact on its budget the actual savings in dollars should also be denoted using the energy rates in effect at the time of the report.

The report should be submitted to the agency for review within 30 days of the end of the M&V period.

² The Notice of Completion of Public Works Contract is available at: <http://www.lni.wa.gov/forms/pdf/F215-038-000.pdf>

Sample Finalized Investment Grade Audit Contents:

A. Audit Phase Services will include:

The energy consultant will undertake an IGA of the facilities. The IGA will identify energy efficiency measures (EEMs). The energy consultant will present to the agency a written finalized IGA Report. The finalized IGA Report will set forth at least the following:

- A description of the facility and those building systems that will receive energy efficiency equipment.
- The EEMs to be installed and a description of the EEMs analyzed but disqualified by the owner.
- The maximum allowable construction cost, itemized in detail.
- Recommendations for replacement of existing equipment, along with recommendations for improvements to existing equipment and operating conditions.
- The standards of comfort and service appropriate for the facility.
- The baseline energy consumption for the facility, including the data, methodology and variables used to compute the baseline, and the baseline calendar period that will not be less than twelve months.
- The estimated energy savings and energy cost savings that are expected to result from the installation of the energy efficiency equipment and an explanation of the method or methods used to make the estimate.
- The schedule for project completion.

Conservation measures can include items that save energy, water or other resources (including various cost saving measures). The IGA Report will provide detailed documentation to support of the recommendations, economic and engineering assumptions, sketches, floor plans, and any other information developed in the course of the IGA.



Energy Savings Performance Contracting Program Process Description

I. Program History

The Energy Savings Performance Contracting (ESPC) program was developed to provide a means to install Energy Conservation Measures (EEMs) in State facilities without affecting the State's capital budget. The ESPC program within the Department of Enterprise Services (formerly General Administration) has since been expanded to provide energy conservation services to all public facilities in the State.

In 2001, the Legislature found that the economy of the state and the health, safety, and welfare of its citizens were threatened by the current energy supply and price instabilities. The ESPC program has been involved in over \$1 billion in total energy construction projects since its inception in 1986, resulting in \$40 million a year in annual utility costs reductions to public facilities.

II. Energy Service Company pre-qualification

On a biennial basis, the Energy Program prepares an advertisement to be placed in the Seattle, and Portland editions of The Daily Journal of Commerce, and the Spokesman Review in Spokane. The advertisement describes the intent to develop a pre-approved list of Energy Services Companies (ESCOs) providing services to public facilities in the State for the upcoming biennium. ESCO firms submit a summary of their qualifications and experience. The submittals are reviewed by the Energy Program and those ESCOs deemed to be qualified are interviewed and offered a Master Energy Services Agreement. This makes them eligible to participate in energy related projects at public facilities managed by the DES Energy Program.

III. Client agency and DES contractual agreement

Local governments, school districts and state agencies (referred to as Client Agencies) must enter into an Interagency Agreement (IAA) with DES before they can participate in the program and work with one of the pre-qualified ESCOs. The IAA is drafted pursuant to Chapter 39.34 RCW. It allows the DES Energy Program to provide overall contracting and project management services to the Client Agency. All work by the Energy Program is authorized by amendments to the Agreement. Compensation for DES's Energy Program services is based on a pre-determined fee schedule that sets project management compensation levels based on the total project value. If the Client Agency proceeds with a project, then they are obligated to pay DES based on the project management fee schedule. If the ESCO fails to develop a project that meets the Client Agencies established cost-effectiveness criteria, then there is no cost to the Client Agency.

IV. ESCO selection by the client agency

Client Agencies are allowed to select any of the pre-qualified ESCOs to work with under the ESPC Program. The DES Energy Program Manager assigns energy project managers (PMs) to work with clients based on their locality within the state or by client organization. The Energy Program PM will provide the client with a copy of executive summaries from each ESCOs statement of qualifications. The summaries provide key information on how each firm approaches projects, their specific experience, and the scope of projects completed in recent years. The PM also has access to the full Statement of Qualification and sample energy audits that each of the ESCO's submitted for evaluation by the pre-qualification selection committee. Client Agencies may use whatever selection process that complies with their own policies and procedures for selecting firms that provide professional services. If the Client Agency chooses to interview firms as part of the selection process, the Energy Program PM may sit in on ESCO interviews but does not participate in the final decision-making process. The Client Agency selects the ESCO.

Energy Program PMs have engineering and other technical experience in energy efficiency technologies and construction projects. These individuals are primarily licensed professional engineers who can interact with the ESCO on issues such as appropriate modification to existing building energy systems, control strategies for heating, ventilating and air-conditioning (HVAC) systems, and appropriate measurement and verification (M&V) methods associated with these retrofit projects.

V. Preliminary audit

After the Client Agency has selected an ESCO for their facility or project, the PM will conduct a walk-through energy audit of the facility with the selected ESCO and the facility representative to determine the general scope and size of the project. During the development of the preliminary audit, energy baseline development and M&V methods will be discussed. DES and the Client Agency will review and agree with the methods proposed.

Prior to the walk-through the Client Agency will provide the ESCO with information about the facility, including utility billing information from at least the most current 12-month period (data covering the past two years is better). Utility data may include electricity, natural gas and water consumption records as appropriate. Information about the facility such as operating schedule, typical number of occupants and square footage are also helpful. This data is analyzed to establish the energy utilization index (EUI) of the facility. EUI may be thought of as similar to a car's fuel efficiency in miles per gallon (mpg). In buildings the lower the EUI, the better it's performing.

The purpose of the preliminary audit is to determine if a potential project exists and, to identify potential EEMs. This is also the time to evaluate equipment data-logging opportunities. (It is difficult, for instance, to get a good representation of cooling equipment operation in the winter or true occupancy patterns of a school in the summer.) The preliminary audit stage is an opportunity for the Client Agency and the PM to clarify with the ESCO the Client Agencies cost-effectiveness criteria and any specific requirements or limitations for the project. ESCOs use the preliminary audit and subsequent proposal process to ensure there will be a feasible project established.

VI. Investment grade audit

Once the ESCO, DES Energy PM, and the Client Agency are satisfied that there is adequate energy saving potential in the facility, the next step is to move to the investment grade audit. The ESCO will develop a proposed scope of work that will include the systems to be evaluated, the timeline to completion, and the cost to conduct the investment grade audit. The PM will review the proposal and negotiate the cost of the audit prior to the proposal being presented to the Client Agency.

Upon receiving Client Agency approval to go forward, the Energy Program PM will prepare an Energy Services Authorization. The Client Agency also receives a Funding Authorization document for signature. By authorizing the funding, the Client Agency certifies to the Energy Program PM that funds are appropriated and/or allocated for the project.

The ESCO will then proceed to conduct a detailed investment grade energy audit of the facility(s) and submit an investment grade audit and energy services proposal to the Energy Program PM and the Client Agency for review and approval.

The investment grade audit is to analyze all cost-effective EEMs for lighting, HVAC equipment, building envelope, steam systems, chilled water systems, domestic hot water and other water using systems, controls, energy generation and distribution systems, and waste management systems. The audit will evaluate the economic performance and investment value of the EEMs.

There are three potential outcomes of the Investment Grade Audit:

1. If a facility does not have EEMs that meet the “cost effectiveness criteria” established by the Client Agency, there is no cost to the Client Agency for the audit. This is true unless the Client Agency, DES, and the ESCO agree to other arrangements. In that case these special arrangements must be reflected in the Authorization between the ESCO and Client Agency.
2. If the ESCO identifies cost-effective measures and the Client Agency decides not to proceed, then the ESCO will be reimbursed for the audit and the Energy Program will be paid a termination fee. This occurs rarely.
3. If the ESCO identifies cost-effective measures and the Client Agency decides to proceed, an energy services proposal is presented to the Client Agency.

The energy services proposal outlines the maximum guaranteed construction cost guaranteed and guaranteed equipment performance.

VII. Cost-effectiveness criteria

The definition of cost-effectiveness for energy conservation projects is found in Chapter 39.35C.010 RCW. It states:

"Cost-effective" means that the present value to a state agency or school district of the energy reasonably expected to be saved or produced by a facility, activity, measure, or piece of equipment over its useful life, including any compensation received from a utility or the Bonneville power administration, is greater than the net present value of the costs of implementing, maintaining, and operating such facility, activity, measure, or piece of equipment over its useful life, when discounted at the cost of public borrowing.

This means that projects are considered cost-effective if they result in a net positive present value over their economic lifetime. For purposes of determining economic lifetime, ESCOs rely on generally accepted engineering practice as is guided by entities such as the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE), or other national or international standard setting bodies.

The following general criteria are commonly used to determine the cost-effectiveness of EEMs proposed in the energy services proposal. Occasionally a Client Agency will have additional criteria that must be met, such as shortened facility life time due to planned replacement.

- The Client Agency may use any combination of the following funding and payment options to discharge its obligations under the Energy Services Agreement:
 - ESCO financing;
 - ESCO arranged Municipal Lease financing;
 - State Treasurer's LOCAL Program;
 - Other third-party financing (banks, etc.)
 - Energy cost savings, utility cost savings, and approved O&M savings to pay off any of the above debt structures;
 - Grants, loans and/or incentives from utilities or other funding sources; and
 - The Client Agencies capital budget or any other funds at the Client Agencies discretion.
- The Client Agencies loan term may not exceed the economic life of the ECM, unless otherwise approved by the Client Agency and DES.
- Not more than 90% of the energy cost savings may be used to repay the loan, unless approved by the Client Agency.
- Up to 100% of utility grants may be used to defray project costs or to repay the loan.
- Labor or maintenance cost savings shall not be included in energy cost savings for the purpose of determining cost-effectiveness, unless specifically approved by the Client Agency. These will typically represent costs for purchased parts and service contracts, not internal labor costs.
- The cost of the EEMs will include: the cost of the investment grade audit and preparation of the energy services proposal; project design; construction; ESCO's construction and project administration; DES's project management fee; system commissioning; bidding; bonding; overhead and profit; permits; taxes; training; cost and saving guarantees, and other costs that may be agreed to by the ESCO PM and the Client Agency.
- The Client Agencies cash flow including savings, utility contributions, cost of measurement and verification services, cost of EEMs, and loan repayments shall be neutral or positive with respect to the baseline cash flow and based on guaranteed savings.
- Current utility rates shall be used for the purpose of calculating energy and utility cost savings. Energy and utility cost inflation factors shall not be used without the Client Agencies expressed approval.

VIII. Energy services proposal and ESCO construction contract

The energy services proposal contains a breakdown and details of the following:

- Facility name, description, EUI, square footage, existing equipment, etc.;
- The EEMs proposed for installation, including quantities;
- The EEMs analyzed but not recommended;
- The EEMs proposed/analyzed but not chosen by the Client Agency;
- Improvements to operations and maintenance (O&M) practices for existing equipment;
- The maximum guaranteed project cost, including engineering and design, permits, materials, construction, commissioning, ESCO fees, DES Energy Program fees, measurement and verification fees, etc.;
- The energy and energy cost savings expected from the EEMs and O&M recommendations;
- Savings guarantee;
- Project cash flow over the term of the project financing, including capital infusion, financing expenses, and M&V costs;
- A detailed schedule for project completion;
- Verification that comfort conditions will be maintained at the facility;
- Identify the services and associated costs for the ESCO during the course of the project, including but not limited to; engineering, construction management, preparation of O&M procedures, training of facility personnel, commissioning, functional testing, HVAC testing, adjusting and balancing, start-up/stop, warranty services, and equipment maintenance; and
- The nature and extent of work and equipment that the ESCO will receive from other firms under subcontract.

The ESCO's overhead and profit and other approved markups to the overall cost of the project are set in the Master Energy Services Agreement. A contingency amount is included to cover any hazardous material costs or additional work for unforeseen conditions that may be encountered in the construction of the project. If contingency is used, it will be managed jointly by DES, the ESCO, and the Client Agency. The use of the contingency requires a change order to the ESCO construction contract.

Once the Client Agency approves the energy services proposal, the PM amends the Energy Services Authorization to add the design, construction contract administration, and overhead and profit.

After the project design is completed and approved by the Client Agency and the Energy Program PM, the ESCO will begin the procurement process. ESCO projects are delivered through a turnkey negotiated process and the ESCO is not required to publicly advertise for bids. The ESCO can procure the equipment through bidding, negotiation, or thru self performance.

- For bidding, the ESCO can solicit bids from preselected sub-contractors, and will consider the client agencies requests for specific sub-contractors. Typically, only two or three subcontractors (pre-approved or requested by the Client Agency) are asked to bid the work.

The ESCO is not required to take the lowest bidder if it is determined to be detrimental to the performance of the project. All sub-contracted work is expected to be competitively bid by the ESCO to assure the ESCO and the Client Agency of a cost-effective installation.

- For negotiation, the ESCO may be allowed to negotiate with specific subcontractors or vendors if it is determined to be beneficial to the project providing that both the client agency and the Energy Program PM agree.
- For self performance, the ESCO may be allowed to self-perform the work if it is determined to be beneficial to the project and both the client agency and the Energy Program PM agree. For work that is self-performed by the ESCO, the project team must agree on whether the construction group will act as a bidder in a selected bidding process or be treated in the same manner as negotiated procurement. If it is through the selected bidding process, it is recommended that the owner or the Energy Program PM receive the bids and the team open the bids as a group.

The ESCO construction contract identifies the acquisition and installation costs associated with the work, overhead and profit margins, bonds and insurance costs, commissioning activities, training for the Client Agencies maintenance personnel, and Washington State Sales Tax.

IX. Notice of Commencement of Energy Cost Savings

When project construction is complete, the ESCO will issue a Notice of Commencement of Energy Cost Savings. This document is the formal written notification to DES and the Client Agency that the ESCO has substantially completed installation of ESCO equipment and/or provided ESCO services. This validates that the equipment or services are now providing sufficient energy savings for the Client Agency to begin making payments, as set forth in the energy services proposal. Acceptance of the Notice of Commencement of Energy Cost Savings by the DES Energy PM and the Client Agency constitutes the date of substantial completion of the project. The Energy Program PM and Client Agency will have inspected the project and accepted it prior to this notice.

The ESCO is confirming that they have inspected the project and that it is complete, that all previously identified “incomplete work items” have been fulfilled, and that the project is providing cost savings sufficient to repay the investment.

X. Invoices

One of the cornerstones of the ESPC program in Washington State is “open book” pricing. Construction costs are defined as “the actual cost of purchasing and installing the ESCO equipment, as demonstrated by the installation price quotes or construction contracts”. This means that the ESCO furnishes all the subcontractor and equipment invoices as backup to the invoices it submits. The ESCO will track project costs by listing subcontractor amounts and equipment quotes as individual lines on the schedule of values (further broken down by project phase if appropriate) on the “APPLICATION AND CERTIFICATE FOR PAYMENT ON CONTRACT” form that accompanies invoice voucher form A-19. It is preferred that subcontractors and equipment purchases over \$10,000 be listed as individual line items on the schedule of values. All contract invoices will be broken down to show all materials and labor costs, even if that contractor is a subsidiary of the ESCO.

If the project is completely financed by the Client Agency through lease purchase or other loan provisions; the ESCO invoice will not be submitted until the project or approved project phase is complete, and the ESCO has submitted the “Notice of Commencement of Energy Cost Savings”. Payments to the ESCO that are dependent on, grants, loans or utility incentive payments will be made within 30 days of the date the Client Agency receives the funds. Payments to the ESCO, which are dependent on funding provided by the Client Agency, may be made by monthly partial payments depending on services provided. The ESCO must meet deadlines for completion and invoicing in order to not delay financing.

XI. Measurement & Verification

The ESCO will enter into an M&V Authorization with the DES Energy Program to provide measurement and verification services as described in the energy services proposal to the Client Agency. M&V services are used to verify that energy or other utility savings are indeed being achieved. The recommended time period for M&V services is three years, with a one-year minimum. The Energy Program PM and the Client Agency may determine that additional M&V is required or beneficial in order to ensure savings continue to accrue, or to meet requirements established under utility reimbursement programs.

Treasury Board's Energy Leasing Program

Background: At its 2001 Session, the Virginia General Assembly enacted the Energy and Operational Efficiency Performance-Based Contracting Act which permits any public body to enter into an energy performance contract with an energy performance contractor to significantly reduce energy operating costs of a facility through one or more energy conservation or operational efficiency measures.

On July 23, 2003 Governor Warner issued Executive Order 54 that directed the Governor's Secretaries and all executive branch agencies to reduce energy costs and consumption in state government operations at least seven percent by 2004, when compared to a 2002 baseline and by at least ten percent by 2006 relative to a 2002 baseline, with a long-term goal of reducing energy consumption by the maximum amount feasible.

In September 2005, the Treasury Board issued a Request for Proposal and subsequently established a program for financing energy efficiency projects.

Purpose: The Energy Leasing Program enables Commonwealth agencies to obtain consistent and competitive credit terms for financing energy efficiency improvements.

The program provides a financing vehicle for qualifying energy projects that the using agency has evaluated and determined to be appropriate and cost effective.

Code Reference - Section 2.2-2417: Under §2.2-2417 of the *Code of Virginia*, the Board's role is to review and approve financial terms of all contracts for the purchase of personal property by agencies, institutions, boards and authorities which receive appropriations from the Commonwealth, where payment of the purchase price is deferred through installment payments, includes the payment of interest or is otherwise financed by the seller, lessor or third party.

- **Eligibility for Financing**

- **Eligible Agencies:** Any agency, institution, board or authority of The Commonwealth of Virginia that receives appropriation from the General Assembly of the Commonwealth.
- **Agency Responsibility:** Agencies are responsible for evaluating the merits and cost effectiveness of any energy project. Agencies are responsible for ensuring that the energy project is in accordance with §4-4.01(u) of the General Provisions of the Appropriations Act. Agencies are responsible for lease payments regardless of actual energy savings resulting from the project; however under a performance contract the agency may have recourse with the energy vendor if savings are insufficient.
- **Energy Projects:** Equipment or services including improvements or retrofits to electrical, lighting and auxiliary systems, heating ventilating and air conditioning systems, building improvements and professional and nonprofessional services relating to the design, installation, training and monitoring of such equipment or systems, and subject to the Lessor's approval.
- **Minimum Amount:** Energy Projects less than \$100,000 are not eligible for financing through the Energy Leasing Program.

- **Essential Property:** The property to be financed must be used for an essential governmental purpose.
- **Vendor Payments:** Lease proceeds will generally be paid directly to the agency vendor. Reimbursements to agencies for amounts paid prior to financing approval are limited by IRS regulations.

- **Lease Terms**

- **Available Payment Terms:** 12 and 15 years (shorter terms may be available from the Treasury Board's Master Equipment Leasing Program)
 - a) **Rate** - The rates on energy leases are indexed to the ten-year Constant Treasury Note and are fixed at the time of each financing lease.
 - b) **Payments** - May be made monthly, semiannually or annually as established at the time of financing.
 - **Monthly Lease Payments** - The initial monthly lease payment made by the agency will be due on the first day of the month that is the second month following the escrow fund date and monthly thereafter.
 - **Semi-Annual Lease Payments** - The initial semi-annual lease payment made by the agency will be due on the first day of the month that is six months after the month following the escrow fund date and semi-annual thereafter.
 - **Annual Lease Payments** - The initial annual lease payment made by the agency will be due on the first day of the month which is twelve months after the month following the month of the escrow fund date and annual thereafter.
- **Useful Life:** The term may not exceed the aggregate useful life of the equipment/project.

- **Interest Rates**

- **Interest Rates:** The rates are indexed to the ten-year Constant Treasury Note as published by the Federal Reserve on a weekly average basis.
- **Rates are fixed at the time of the financing.**

- **Legal Structure of the Energy Leasing Program**

- **Single Lease Agreement:** The Treasury Board, through an Request for Proposal (RFP) process, negotiates a master lease agreement through one or more finance companies to provide financing for state agencies, institutions, boards and authorities. Each acquisition/financing under the Master Lease contract constitutes an "appendix" to the Master Lease agreement
- **Tax-Exempt Lease:**
 - a) **Governmental Borrower** – All state agencies, institutions, boards and authorities of the Commonwealth may borrow through the program to finance energy projects.
 - b) **Governmental Use** – The projects financed must be for governmental use.

- c) **Lease Payments Subject to Appropriation** – The lease payments are subject to appropriation by the General Assembly each year.
- d) **Lease Term** – The term of the lease may not exceed the aggregate useful life of the project.
- **Security Structure of the Energy Leasing Program:**
 - a) **Lessor's Security Interest in Equipment/Project** – If an agency defaults or if the Master Lease terminates, the lessor can repossess all of the equipment/ projects financed under the Agreement.
 - b) **Creditworthiness of the Commonwealth** – The creditworthiness of the Commonwealth as a whole is considered and enhances the interest rates available through the program.
- **Accessing the Energy Leasing Program**
 - **Apply to the Department of the Treasury:** Agencies should submit financing requests to the Department of the Treasury. Financing requests should include:
 1. Request Form
 2. Copy of the Review Letter from the Department of Mines, Mineral and Energy.
 3. Copy of the Energy Audit (Executive Summary)
 4. Project Scope/Cashflows
 5. Copy of the approved Decision Brief for energy projects totaling \$7 million or more.
 - **Approved Requests:** Prior to funding under any lease, the Agency will provide:
 1. Appendix
 2. Evidence that Lessor has been named as Co-Obligee under any payment and/ or performance bond.
 3. A copy of the executed Performance Contract
 4. Disbursement Request Certificate (Schedule 1 of the escrow agreement)
 5. List of Authorized Representatives
 - **Primary Contact:**
 Debora B. Greene
 Public Finance Analyst
 (804) 371-6235 – Telephone
 (804) 225-3187 – Facsimile
debora.greene@trs.virginia.gov
- **Prepayment Provisions**
 - **Prepayment Penalties:** Leases can be prepaid at the following prepayment prices, expressed as a percentage of the principal amount outstanding, plus accrued interest to the prepayment date. Prepayment penalties apply as follows:

Prepayment Period (all months inclusive)	Prepayment Prices
Vendor Payment Date to 6 months	103%
7 to 12 months	102%
13 to 18 months	101%
over 18 months	100%

- **Purpose:** Prepayment should be used where financially beneficial to the agency and the Commonwealth.
- **Prohibition:** Financings and subsequent prepayments should not be used in an abusive manner solely to enhance annual cash flow.

- **Vendor/Third Party Financings**

- **Treasury Board Approval:** Agencies are not required to use the Energy Leasing Program; however, alternative financing arrangements must first be approved by the Treasury Board.
- **Minimum Amount:** Energy purchases less than \$100,000 are not eligible for review by the Treasury Board.
- **Apply to the Department of the Treasury:** Agencies should submit application seeking approval to the Department of the Treasury. Submissions should include:
 1. Application/Letter from Agency
 2. Financing Summary (available from the Department of the Treasury)
 3. Copy of the Energy Audit (Executive Summary)
 4. Project Scope/Cashflows
 5. Pricing/Term Sheet
 6. Form of Lease Agreement
- **Treasury Board Meetings:** Applications for Treasury Board approval will be considered only at regular monthly meetings of the Board. Board meetings are usually held on the third Wednesday of the month at 9:00 a.m.; however the meeting dates are subject to change and should be confirmed. Requests for consideration of Treasury Board approval of terms and structure must be received in the Debt Management Division of the Department of the Treasury a minimum of three (3) weeks prior to the scheduled meeting date. Final documentation must be received in the Debt Management Division of the Department of the Treasury one (1) week prior to the scheduled meeting date for inclusion to the Treasury Board package submitted to the board members.
- **Procurement Process:** Agencies must adhere to the State's procurement laws and regulations procuring financing arrangements.
- **Treasury Board Review:** Treasury Board review is limited to the financial terms and conditions of the financing arrangement.
- **Approval:** Financing arrangements that offer more favorable rates and terms are typically approved.

- **Documents:** Agencies must provide the Treasury Board with a copy of the final executed financing contract.

Master Financing Agreement – Guidance for Municipalities

Guidance Document for Municipalities

MASTER FINANCING AGREEMENT

between

[_____]
(Lender),
as Lender

and

[_____]
(Borrower),
as Borrower

Dated as of [____], 201____

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Exhibit A Form of Schedule

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MASTER FINANCING AGREEMENT

Lender: []
[]
[]

Borrower: []
[]
[]

THIS MASTER FINANCING AGREEMENT dated as of [], 201_ (the "Master Financing Agreement"), between [], as Lender, and [], a municipality existing under the laws of the State of Connecticut ("Borrower").

WITNESSETH

WHEREAS, the Borrower is authorized and empowered under the laws of the State, as issuer, to issue bonds, bond anticipation notes, or other obligations for any of its public purposes and to fund or refund the same for purposes of authorized projects; and

WHEREAS, the parties hereto desire that the Borrower from time to time borrow amounts from Lender on the terms and conditions set forth below, and pursuant to the Schedule or Schedules (as hereinafter defined) attached hereto and made a part hereof; and

WHEREAS, as security for the payment of all of Borrower's obligations ("Obligations") under this Master Financing Agreement, Borrower shall grant to the Lender a first priority perfected security interest in the Collateral;

NOW, THEREFORE, in consideration of the payments to be made hereunder and the mutual covenants contained herein, the parties agree as follows.

ARTICLE I DEFINITIONS

The following terms used herein will have the meanings indicated below unless the context clearly requires otherwise.

"Acquisition Costs" means with respect to any Schedule, the Contract Price paid or to be paid to the Vendors for any portion of the Equipment upon Borrower's acceptance thereof and in accordance with the Purchase Agreement therefor, including reasonable administrative, engineering, legal, financial and other costs incurred by Borrower and Vendors in connection with the acquisition, installation (which may include minor renovations to buildings but which shall not include substantial structural changes similar to new construction in excess of __%), financing and refinancing by Lender of such Equipment under this Master Financing Agreement.

“Additional Payments” means the amounts, other than Loan Payments, payable by Borrower pursuant to the provisions of this Master Financing Agreement, as set forth in Section 10.3 hereof.

“After-Tax Basis” means, with respect to any Loan Payments, the amount of such Loan Payment supplemented by a further payment in an amount sufficient so that the sum of the two payments, after deduction of all Federal, State or local income taxes (and any interest or penalties thereon) resulting from the receipt of the two payments, shall be equal to the amount of such Loan Payment.

“Agreement” means this Master Financing Agreement and each Schedule, as the same may be amended or modified from time to time, including the accompanying attachments and documents relating to such Schedule, which shall constitute a fully integrated transaction existing in accordance with its own terms and conditions separate from and independent of all other transactions pursuant to this Master Financing Agreement.

“Authorized Officer” means: (i) in the case of Lender, any Vice President or Assistant Vice President, and when used in reference to an act or document of Lender, also means any other person authorized to perform the act or sign the document; and (ii) when used with reference to an act or document of Borrower, also means any other person authorized to perform the act or execute the document.

“Borrower” means (i) the entity identified above as such in the first paragraph of this Master Financing Agreement; (ii) any surviving, resulting or transferee entity thereof; and (iii) except where the context requires otherwise, any assignee(s) of Borrower.

“Certificate of Acceptance” means a Certificate of Acceptance, in substantially the form set forth as Attachment A to Schedule 1, executed by an Authorized Officer of Borrower and acknowledged by Authorized Officers of Lender.

“Closing” means the date of delivery of all executed documents related to each Agreement as required under this Master Financing Agreement.

“Code” means the Internal Revenue Code of 1986, as amended from time to time.

“Collateral” means (a) the Equipment, (b) all general intangibles, software and other property relating thereto, (c) all accessories, attachments, parts, equipment and repairs now or hereafter attached or affixed or used in connection with any of the foregoing property, (d) all warehouse receipts, bills of lading, and other documents of title now or hereafter covering any of the foregoing property, (e) all securities, funds, moneys, deposits and other property at any time held in or subject to the Project Fund, (f) all accessories thereto, (g) all substitutions for any of the foregoing property and (h) all products and proceeds of any of the foregoing property (including, without limitation, any property acquired by Borrower with such proceeds).

“Contract Price” means the all-inclusive price of an item of Equipment, including the cost of installation which would be a capital cost under Section 263 of the Code if the Borrower were subject to taxation under Subchapter C of the Code, but excluding the cost of any service contract, as set forth in the applicable Purchase Agreement.

“Equipment” means the fixed and moveable personal property to be used in connection with Borrower’s public purposes, which property shall be identified in a Schedule executed by or pursuant to authority of the Borrower, accepted by Lender in writing and identified as part of this Master Financing Agreement (including, to the extent permitted pursuant to the Code, certain items originally financed through internal advances of Borrower in anticipation of obtaining permanent financing), now owned or hereinafter acquired with Loan Proceeds, together with all replacement parts, additions, repairs, modifications, substitutions, accessions, and accessories incorporated therein and/or affixed to such personal property which would qualify as a “capital cost” under Section 263 of the Code if the Borrower were subject to taxation under Subchapter C of the Code.

“Gross-Up Payment” means, with respect to any Loan Payment, an additional loan payment in an amount sufficient such that the sum of the additional loan payment plus the Loan Payment would, after the two payments were reduced by the amount of any Federal, State or local income tax (including any interest or penalties) actually imposed thereon, equal the amount of the Loan Payment.

“Lender” means (i) the entity identified above as such in the first paragraph of this Master Financing Agreement; (ii) any surviving, resulting or transferee entity thereof; and (iii) except where the context requires otherwise, any assignee(s) of the Lender.

“Loan” or “Master Financing Agreement” means, collectively, this Master Financing Agreement, including Exhibit A hereto, as any of the same may be supplemented or amended from time to time in accordance with the terms hereof. This Master Financing Agreement shall be implemented through the execution of Schedules (including Attachments A through J in the form attached hereto) numbered consecutively commencing with Schedule No. 1. For the purpose of construing a transaction as an integrated agreement, including without limitation, for the purposes of the provisions of Article III, Section 7.2 and Article XIII hereof, an Agreement shall be considered a single transaction and a legal and binding agreement.

“Loan Payments” means those scheduled payments (but excluding administrative fees, indemnifications and reimbursements and Additional Payments payable to Lender) payable to Lender pursuant to the provisions of this Master Financing Agreement and each Schedule, as specifically set forth in applicable Schedules to this Master Financing Agreement. As provided in Article VI hereof, Loan Payments shall be payable by Borrower to Lender in the amounts and at the times during the Term as set forth in applicable Schedule.

“Loan Proceeds” means, with respect to any Schedule, the total amount of money or other consideration to be paid or provided by Lender for application in accordance with such Schedule and Section 14.1 hereof, including (a) the Contract Price of each item of Equipment set forth on such Schedule payable to the Vendor thereof upon acceptance by Borrower and (b) the amount, if any, paid by Lender and applied to the reasonable costs of issuance of an Agreement.

“Loan Year” means, with respect to any Agreement, each one-year period (or shorter period for the first or last year prior to the payment in full of such Agreement) ending on the principal payment date stated in the applicable Schedule.

“Prepayment Amount” means, as of any date, the full outstanding and unpaid principal amount of the Loan Proceeds made under this Master Financing Agreement and the applicable Schedule plus all unpaid interest on that principal amount which has accrued or will accrue through the date the Prepayment Amount is paid plus the prepayment premium, if any, specified in the Schedule relating to the Equipment, plus all other amounts due the Lender under such Agreement.

“Prime” means the rate of interest announced from time to time by [] as its “prime” or “base” lending rate for commercial loans of short-term maturities.

“Project Fund” means the fund into which the Lender will deposit the Loan Proceeds, which will be held and administered by the Lender on behalf of the Borrower pursuant to the Project Fund Agreement.

“Project Fund Agreement” means, with respect to any Schedule, Attachment I thereto, as the same may be amended or modified from time to time, including any accompanying attachments and documents relating to such Project Fund Agreement.

“Purchase Agreements” means each of the purchase agreements between Borrower and the Vendors of the Equipment.

“Purchaser” means Borrower, its successors and assigns.

“Schedule” means, with respect to the provision of the Equipment under this Master Financing Agreement, a Schedule of Equipment and Loan Payments in substantially the same form set forth as Exhibit A, which has been executed by Lender and Borrower, reasonably identifies the Equipment subject to such Schedule, sets forth the Loan Payments and Purchase Price payable in respect thereof, and states the Term applicable thereto and certain other matters. Schedules shall be numbered consecutively beginning with 1, and each Schedule shall be accompanied by Attachments in the form of Attachments A through I to Exhibit A to this Master Financing Agreement.

“State” means the State of Connecticut.

“Term” means, with respect to any Agreement, the term specified in the applicable Schedule in accordance with Article IV hereof.

“UCC” means the State’s Uniform Commercial Code, as amended.

“Vendor” means the manufacturer of an item of Equipment, as well as the agents or dealers of the manufacturer, from whom Borrower has purchased or is purchasing items of Equipment.

ARTICLE II
REPRESENTATIONS, WARRANTIES AND COVENANTS
OF BORROWER

Section 2.1 **Borrower's Representations, Warranties and Covenants.** The Borrower represents, warrants and covenants, for the benefit of Lender and Borrower, as follows:

(a) The Borrower is a body corporate and politic and a public subdivision of the State duly created and validly existing under the laws of the State;

(b) The Borrower will exercise its best efforts to preserve and keep in full force and effect its existence as a body corporate and politic;

(c) The Borrower is authorized under the laws of the State to enter into this Master Financing Agreement and the transactions contemplated hereby and to perform all of its obligations hereunder;

(d) The Borrower has duly authorized the execution and delivery of this Master Financing Agreement under the terms and provisions of the resolution of its [_____] and further represents, covenants and warrants that all requirements have been met and procedures have occurred in order to ensure the enforceability of this Master Financing Agreement against the Borrower; that Borrower has granted to Lender a security interest in the Collateral; and that the Borrower has complied with any applicable public bidding requirements with respect to this Master Financing Agreement and the Equipment;

(e) The Borrower shall cause to be executed and delivered in connection with each Schedule an arbitration certificate, an opinion of its counsel and an applicable IRS Form 8038 substantially in the form attached hereto and satisfactory to Lender; and

(f) Borrower is authorized under the laws of the State to enter into this Master Financing Agreement and the transactions contemplated hereby and to perform all of its obligations hereunder;

(g) The Equipment is, and during the period this Master Financing Agreement is in force will remain, either (i) personal property and, when subjected to use by Borrower hereunder, will not be or become fixtures, or (ii) if any portion of the Equipment may be considered to be a fixture, Borrower shall cause filings to be made with the applicable governmental officials and offices to create and preserve for Lender a perfected first priority security interest in the Equipment;

(h) During the Term, Borrower shall not carry on or permit to be carried on, in, or with respect to any of its facilities, including the Equipment, or permit its facilities, including the Equipment, to be used in or for any trade or business the conduct of which is not substantially related (aside from the need of Borrower for income or funds or the use it makes of the profits derived therefrom) to the exercise or performance by Borrower of its purposes or functions, if such use would have an adverse effect on the exclusion of the interest portion of the Loan Payments from gross income for federal income tax purposes;

(i) During the period this Master Financing Agreement is in force, Borrower shall provide (i) annually, within 120 days following the end of its fiscal year, audited financial statements, prepared in accordance with generally accepted accounting principles, for such fiscal year, together with a statement from independent certified public accountants to the effect that during the course of their examination of the Borrower's financial statements, nothing came to their attention that would indicate that any event or condition by or affecting the Borrower has occurred that constitutes, or which with the giving of notice or passage of time or both would constitute, an Event of Default under this Master Financing Agreement; (ii) annually, within 120 days following the end of its fiscal year, a certification as to the condition of the Equipment, as to the operation and maintenance of the Equipment in accordance with the purposes for which it was acquired and installed and as to the installation and operation of the Equipment in compliance with all applicable federal and State environmental and other laws and regulations; (iii) annually, within 120 days following the end of its fiscal year, a certification that it is, and, to the best of its knowledge after due inquiry, all contractors retained by the Borrower and all subcontractors retained by such contractors in connection with the acquisition and installation of the Equipment are in compliance with all applicable federal and State equal employment opportunity laws; and (iv) such other financial and other information relating to the ability of Borrower to continue performing hereunder as may, from time to time, be reasonably requested by Lender but in any event within fifteen (15) days of such request;

(j) Borrower assumes full responsibility for the safety and any consequences of lack of safety with respect to the operation and maintenance of the Equipment while Borrower has the right to possession or control of the Equipment; and

(k) Borrower shall file or cause to be filed with the Internal Revenue Service a IRS Form 8038 not later than the fifteenth day of the second month following the end of the calendar quarter during which this Master Financing Agreement and any Schedule thereunder was issued.

The above representations, warranties and covenants and those contained in the Schedules attached hereto, or relied upon by counsel to the Borrower in rendering the opinion attached hereto as Attachment C, are based upon the personal knowledge and belief of the undersigned Authorized Officer executing this Financing Agreement on behalf of the Borrower, or are rendered by such Authorized Officer, after consultation with and verification by another Authorized Officer or other officers or employees, who have actual knowledge of such facts and circumstances contained in such representations, warranties and covenants.

Section 2.2 Tax Covenants.

(a) It is the intention of the parties hereto that the interest portion of the Loan Payments received by Lender under any Schedule be and remain excludable from gross income for federal income tax purposes.

(b) The Borrower covenants that it will not perform any act, or fail to perform any act to the extent the performance of the act, or failure to perform the act, as the case may be, shall have the effect of terminating the exclusion of the interest portion of the Loan Payments from gross income for federal income tax purposes. Notwithstanding any other provision of this

Master Financing Agreement, the covenant contained in this subsection (b) shall survive the termination of this Master Financing Agreement.

(c) The Borrower covenants that it will pay any arbitrage rebate due to the United States of America in connection with this Master Financing Agreement and any Schedule hereto, and that it will not perform any act or enter into any agreement or use or permit the use of the Equipment or any portion thereof in a manner that shall have the effect of terminating such exclusion of the interest component of the Loan Payments received by the Lender from gross income for federal income tax purposes, including, without limitation, leasing or transferring all or any portion of the Equipment or contracting with a third party for the use or operation of all or any portion of the Equipment if entering into such lease, transfer or contract would have such effect. Notwithstanding any other provisions of this Master Financing Agreement, the covenant contained in this subsection (c) shall survive the termination of this Master Financing Agreement.

(d) It is the intention of the parties hereto that during the term of this Master Financing Agreement, Borrower shall be the sole beneficial and legal owner of the Equipment, and will report on such basis for financial accounting, federal income tax, and all other purposes. Lender shall not take any action inconsistent with Borrower's ownership of the Equipment for federal income tax purposes except pursuant to the exercise of remedies under Article XIII.

(e) The Borrower represents that the weighted average maturity (defined in accordance with the Code) of any Schedule will not exceed one hundred twenty percent (120%) of the weighted average reasonably expected economic life in the hands of the Borrower of the Equipment financed by Loan Proceeds derived from such Schedule.

(f) The Borrower covenants that it will not execute any Schedule in violation of Code Section 145(b); nor will the Borrower take, or permit to be taken, any action that would cause a previously executed Schedule to violate Code Section 145(b).

(g) The Borrower covenants that it will not use the proceeds of any Schedule to reimburse expenditures previously paid by Borrower, except in compliance with the requirements of Treas. Reg. Sections 1.150-2.

(h) The Borrower covenants that it will not use the proceeds of any Schedule to provide an airplane, skybox or other private luxury box, a facility primarily used for gambling, a store the principal business of which is the sale of alcoholic beverages for consumption off premises or to provide residential rental facilities.

(i) The Borrower covenants that it will not lease the Equipment or license its use to another person. The Borrower covenants that it will not enter into a contract with another person for the management or operation of any Equipment that would not constitute a qualified management contract within the meaning of the Code.

(j) The Borrower covenants that it will enter into no tax-exempt financing or tax-exempt financing lease and further covenants that no tax-exempt bonds of which it is the beneficiary will be sold (issued in the case of variable rate bonds) within fifteen (15) days of the date of execution of a Schedule. If the interest component of Loan Payments for a Schedule is a

variable rate, the Borrower covenants that no other tax-exempt financing of which it is the beneficiary will be sold or delivered within fifteen (15) days of the commencement of the term of any Schedule.

(k) If at any time there is a change in the law or a determination by a federal or state tax authority, the effect of which would be to cause the interest portion of the Loan Payments no longer to be excludable from gross income under the Code, the Borrower shall, at its sole discretion, either pay the Prepayment Amount, as defined in and determined pursuant to the provisions of this Agreement (plus the accrued and unpaid interest portion of such Loan Payments, if any) within thirty (30) days of notice from the Lender, or begin paying Gross-Up Payments to the Lender as additional amounts under the Agreement. In addition, regardless of which alternative is chosen by Borrower, the Borrower shall make a payment to the Lender on such termination date, or on the date of the first Loan Payment after such notice, as the case may be, sufficient to indemnify the Lender on an After-Tax Basis for any Federal, State or local income taxes imposed as a result of such determination on any Loan Payments which may already have been received by or become payable to Lender prior to such termination date or date of the first Loan Payment after such notice, as the case may be.

The above representations, warranties and covenants and those contained in Section 2.4 below and in each Arbitrage Certificate of Borrower delivered in connection with a Schedule, which are relied upon by counsel to the Borrower in rendering the opinion attached hereto or accompanying such Schedule, are based upon the personal knowledge and belief of the undersigned Authorized Officer executing this Financing Agreement on behalf of the Borrower, or are rendered by such Authorized Officer after consultation with and verification by another Authorized Officer, or other officer or employee or counsel, who have actual knowledge of such facts and circumstances, or sufficient understanding of the scope of the investigation and analysis required by the pertinent sections of the Code and Treasury Regulations, contained in such representations, warranties and covenants.

Section 2.3 Compliance with Rebate Requirement.

(a) The Borrower covenants to comply with its Arbitrage Certificate of Borrower delivered at the Closing of each Schedule, the terms of which are hereby incorporated by reference into this Master Financing Agreement.

For the purpose of complying with Section 148(f) of the Code and the regulations thereunder, as amended from time to time (the “Rebate Provision”), within forty-five (45) days after the close of each Loan Year (or any earlier date that may be necessary to make a required payment to the United States under Subsection (c) below), the Borrower shall compute the amount of the Excess (as defined in Subsection (b) below), if any, for each Schedule as of the close of such Loan Year. For purposes of this subsection, (i) computations of Excess shall be made as if the last day of the applicable Loan Year were a “computation date” within the meaning of Treas. Reg. § 1.148-1(b), or any successor regulation and (ii) an Excess with respect to a Schedule shall not be less than zero.

(b) "Excess" means the sum of

(i) the excess of

(A) the aggregate amount earned on all Nonpurpose Investments (other than investments attributable to an excess described in this subparagraph) attributable to the Gross Proceeds of the applicable Schedule, over

(B) the amount which would have been earned if such Nonpurpose Investments were invested at a rate equal to the yield (determined in accordance with the Rebate Provision) on the Schedule to which such Gross Proceeds are attributable,

plus

(ii) any income attributable to the Excess described in subparagraph (i) above.

The amount of any calculated Excess shall be reduced by any payments made to the United States pursuant to Subsection (c). The terms "Nonpurpose Investment" and "Gross Proceeds" shall have the meanings given, and the Excess shall be computed in the manner provided, in the Rebate Provision and shall be applied as provided therein.

(c) Payment of Rebate to the United States.

(i) No later than sixty (60) days after the close of the fifth Loan Year following the date of execution of a Schedule (or any earlier date that may be required to comply with the Rebate Provision) and the close of each fifth Loan Year thereafter, the Borrower shall pay to the United States the full amount then required to be paid under the Rebate Provision as certified by the Borrower in accordance with Subparagraph (c)(ii). Within sixty (60) days after a given Schedule has been paid in full, the Borrower shall pay to the United States the full amount then required to be paid under the Rebate Provision as certified by the Borrower in accordance with Subparagraph (c)(ii). Each such payment shall be made to the Internal Revenue Service Center, Ogden, Utah 84201 or any successor location specified by the Internal Revenue Service, accompanied by a Form 8038 (or other similar information reporting form) furnished by the Borrower.

(ii) No later than fifteen (15) days prior to each date on which a payment could become due under Subsection (c) (i) above (a "Rebate Payment Date"), the Borrower shall deliver to the Lender a certificate either summarizing the determination that no amount is required to be paid or specifying the amount then required to be paid pursuant to Subsection (c) (i) and an IRS Form 8038 (or other similar reporting form).

(d) The Borrower shall keep such records as will enable them to fulfill their responsibilities under this section and the Rebate Provision.

(e) The purpose of this section is to satisfy the requirements of the Rebate Provision. Accordingly, this section shall be construed so as to meet such requirements. The Borrower covenants that all action taken under this section shall be taken in a manner that complies with the Rebate Provision and that it shall neither take any action nor omit to take any action that would cause this Master Financing Agreement or any Schedule to be an “arbitrage bond” within the meaning of the Code by reason of the failure to comply with the Rebate Provision.

(f) The Borrower may exclude from its computation of an Excess required by Subsection 2.04(b) any Gross Proceeds that are not subject to rebate pursuant to Section 148(f)(4) of the Code or to any applicable regulations promulgated thereto.

(g) To the extent any payment of rebatable arbitrage is either insufficient or not timely made to the United States, the Borrower shall pay to the United States any deficiency, correction amount, interest, penalty, or other amount necessary to prevent any Schedule from becoming an arbitrage bond within the meaning of Section 148 of the Code. The Borrower covenants that to the extent necessary it shall obtain the advice and assistance of experts to aid it in complying with the Rebate Provision.

(h) Notwithstanding any other provision of this Master Financing Agreement, this Section 2.4 shall survive the termination of this Master Financing Agreement.

ARTICLE III FINANCING OF EQUIPMENT

Section 3.1 Acquisition of Equipment.

(a) Borrower either has ordered or shall order the Equipment pursuant to one or more Purchase Agreements from one or more Vendors. During the term of the Purchase Agreement, Borrower shall remain liable to each such Vendor with respect to its duties and obligations in accordance with the Purchase Agreement.

(b) The obligation of Lender to lend on the basis of an item of Equipment is subject to the following conditions:

(i) Borrower shall have accepted the Equipment by delivery to Lender of a Certificate of Acceptance, whereupon the item of Equipment shall immediately become subject to and governed by the provisions of the applicable Agreement.

(ii) There shall exist no Event of Default under this Master Financing Agreement or any condition, event or act which with notice or lapse of time, or both, would become an Event of Default which has not been remedied or waived.

If either of the foregoing conditions has not been met with respect to an item of Equipment, the Borrower shall purchase and pay for such item with its own funds in accordance with the Purchase Agreement.

Section 3.2 Financing or Refinancing of Equipment. Upon execution of each Schedule, Lender shall provide the Loan Proceeds specified in such Schedule to finance the acquisition of the Equipment by Borrower. The Lender hereby agrees to loan such amount to the Borrower and Borrower hereby agrees to borrow such amount from the Lender to finance or refinance the Equipment, all in accordance with the provisions of this Master Financing Agreement, to have and to hold for the Term. Borrower hereby acknowledges and agrees that Lender hereby is granted and shall retain a perfected first priority security interest in the Collateral in accordance with this Master Financing Agreement. The execution and delivery of this Master Financing Agreement shall not obligate Lender to execute and deliver any Schedule or to provide any funds or other consideration with respect to any Schedule, unless and until such Schedule has been executed and delivered by all other parties thereto and all conditions set forth in this Master Financing Agreement and such Schedule have been satisfied.

ARTICLE IV TERM OF AGREEMENT

Section 4.1 Commencement of Term. The Term applicable to any Schedule shall commence on the date specified in such Schedule and shall terminate as provided in Section 4.2.

Section 4.2 Termination of Term. The Term applicable to any Schedule will terminate (except as otherwise provided in Section 2.2(b), 2.2(c), 2.3 and 13.4 hereof) upon the earliest to occur of any of the following events:

(a) the exercise by the Borrower of the option granted under the provisions of Articles IX or XI hereof to prepay the loan financing for purchase of the Equipment identified in such Schedule; or

(b) Lender's election to terminate this Master Financing Agreement under Article XIII due to Borrower's default hereunder; or

(c) the payment by Borrower of all Loan Payments with respect to such Schedule and Additional Payments required to be paid by Borrower hereunder.

ARTICLE V EQUIPMENT

Section 5.1 Inspection of Equipment. Lender shall have the right at all reasonable times during business hours, upon reasonable advance notice to Borrower, to enter into and upon the property of Borrower for the purpose of inspecting the Equipment, provided that such inspection shall not interfere with the rights of the Borrower's patients or other customers, including privacy rights, or to remove the Equipment pursuant to Article XIII of this Master Financing Agreement.

ARTICLE VI LOAN PAYMENTS

Section 6.1 Payment of Loan Payments. Borrower shall pay to Lender the Loan Payments in lawful money of the United States of America, in the amounts and on the dates set forth in the applicable Schedule relating to such Loan Payments.

Section 6.2 Interest and Principal Components. A portion of each Loan Payment is paid as, and represents payment of, interest, and the balance of each Loan Payment is paid as, and represents payment of, principal. Each Schedule hereto shall set forth the principal and interest components of each Loan Payment payable thereunder during the Term.

Section 6.3 Loan Payments. As to each Agreement, Borrower shall pay to Lender the Loan Payments, including the interest components thereof, equal to the amounts specified in each Schedule comprising a part of such Agreement and shall pay to Lender all other payments and fees due hereunder. The Loan Payments shall be payable without notice or demand when due at such place as Lender shall reasonably direct in writing at the time the Schedule is executed or such other place as Lender may from time to time reasonably designate in writing. Any payments received after a period of ten (10) days from the date on which the same were due shall bear interest at the rate of Prime plus one percent (1%) from the due date. The obligations of Borrower to make payment of the Loan Payments and all other payments and fees due hereunder, as well as to perform and observe all other covenants hereunder, shall be absolute and unconditional in all events, without abatement, diminution, deduction, set-off or defense for any reason, including without limitation any failure of the Equipment to be delivered or installed, any defects, malfunctions, breakdowns or infirmities in the Equipment or any accident, condemnation, destruction or unforeseen circumstances. Notwithstanding any dispute between Borrower and any of Lender, any Vendor or any other person, Borrower shall make all Loan Payments when due and shall not withhold any Loan Payments pending final resolution of such dispute, nor shall Borrower assert any right of set-off or counterclaim against its obligation to make such payments required under this Master Financing Agreement.

Section 6.4 Appointment of Servicer. Lender shall have the right to designate an entity to act as the “Servicer” for the collection of Loan Payments payable by Borrower, the enforcement of remedies or the distribution of funds to one or more holders of interests in this Master Financing Agreement, all as provided herein. Any Servicer appointed under this section shall be a trust company or a bank having the powers of a trust company, having a capital and surplus of not less than \$25,000,000. Any such Servicer shall notify the Borrower and Lender of its acceptance of the appointment and, upon giving such notice, shall become Servicer, vested with all the property, rights and powers of the Servicer hereunder, without any further act or conveyance. Borrower shall be able to rely on such notice and shall thereafter deliver any and all Loan Payments to Servicer. Such Servicer shall execute, deliver, record and file such instruments as are required to confirm or perfect its acceptance hereunder and set forth its duties hereunder.

ARTICLE VII SECURITY INTEREST

Section 7.1 Security Interest. This Master Financing Agreement and each Schedule hereto are intended to constitute a security agreement within the meaning of the UCC. In order to secure all of its obligations hereunder to Lender, Borrower hereby: (i) grants to the Lender a security interest constituting a first lien on any and all right, title and interest of Borrower in the Collateral; (ii) agrees that each Agreement may be filed as a financing statement evidencing such security interest in the Collateral governed thereby; and (iii) agrees to execute and deliver such additional documents, including financing statements, certificates of title, affidavits, notices and similar instruments, in form satisfactory to Lender, necessary or appropriate to perfect and maintain such security interest in the Collateral and authorizes Lender to file such documents. The Equipment is and shall remain personal property, but to the extent that the Equipment may be deemed a fixture, Borrower shall cause filings to be made with the applicable governmental officials and offices, in order to create and preserve for Lender as assignee of issuer a perfected first priority security interest in the Equipment, and Lender's rights and interests in such Equipment shall be unimpaired. Upon termination of an Agreement pursuant to Section 11.1 or Section 11.3 hereof, Lender's security interest in the applicable Equipment shall terminate, and Lender shall execute and deliver to Obligor such documents as Obligor may request to evidence the termination of Lender's security or other interest in such Equipment.

Section 7.2 Liens and Encumbrances. Borrower shall promptly discharge any mechanics' or materialmen's liens placed on the Collateral. If requested by Lender, Borrower shall obtain its landlord's and mortgagee's waiver of rights to the Equipment as fixtures or otherwise. Furthermore, if requested by Lender, Borrower shall obtain the waiver of any interest in the Collateral from any owner of, or a secured party with an interest in, equipment on which the Equipment becomes an accession.

Section 7.3 Change in Name, Corporate Structure or Principal Place of Business. The Borrower is required to provide written notice to the Lender of any change in its name, corporate structure, jurisdiction of organization or principal place of business. Such notice shall be provided thirty (30) days in advance of the date that such change is planned to take effect. This Section shall also apply to any of Borrower's assignees or subassignees.

Section 7.4 Location. The Equipment shall be located in the place designated in the Schedule pertaining thereto.

ARTICLE VIII MAINTENANCE; MODIFICATION; TAXES; INSURANCE AND OTHER CHARGES

Section 8.1 Use and Maintenance of Equipment By Borrower. Upon acceptance of the Equipment as provided by this Master Financing Agreement, care of such Equipment shall be solely the obligation and responsibility of Borrower, who shall care for and promptly make and effect all repairs, replacements, and the like as may be necessary to maintain the Equipment in good working order and running condition at all times during the Term in accordance, at a minimum, with the manufacturer's then prevailing specifications therefor. The cost of all such

care, maintenance, repairs, replacements, parts and the like shall be borne solely by Borrower as a normal operating cost incident to an Agreement. Borrower shall not install, use, operate or maintain the Equipment improperly, carelessly, in violation of any applicable law, license or insurance policy provision, including the provisions of the Purchase Agreement specifications of any warranty relating thereto, or in any manner contrary to that contemplated by the Agreement or the Purchase Agreement applicable thereto. Borrower shall secure all permits and licenses, if any, necessary for the installation, use, operation, modification and upgrade of the Equipment. Borrower shall comply in all material respects with the laws of each jurisdiction in which its operations involving the Equipment may extend and any legislative, executive, administrative or judicial body exercising power over the Equipment or Borrower's interest in the Agreement applicable thereto. Borrower shall not make any alterations, additions or improvements to the Equipment without Lender's prior written consent unless such alterations, additions or improvements may be readily removed without damage to the Equipment. Lender shall be entitled to inspect the Equipment or observe its use and operation during reasonable business hours regardless of whether the Equipment is located on Borrower's property or is located elsewhere. Borrower assumes full responsibility for the safety and any consequences of lack of safety with respect to the operation and maintenance of the Equipment while Borrower has possession or control of the Equipment.

Section 8.2 Taxes, Other Governmental Charges and Utility Charges. The parties hereto contemplate that the Equipment will be used for the governmental purposes of Borrower and, therefore, that the Equipment will be exempt from all taxes presently assessed and levied with respect to personal property. In the event that the use, possession or acquisition of the Equipment is found to be subject to taxation in any form (except for income taxes, if any, of Lender), Borrower shall pay during the Term, as the same respectively come due, all taxes and governmental charges of any kind whatsoever that may at any time be lawfully assessed or levied against or with respect to the Equipment. Borrower shall also pay during the Term, as the same respectively come due, all gas, water, steam, electricity, heat, power, telephone, utility and other charges incurred in the operation, maintenance, use, occupancy and upkeep of the Equipment. With respect to any governmental charges that may lawfully be paid in installments over a period of years, Borrower shall be obligated to pay only such installments as have accrued during the time this Master Financing Agreement is in effect.

Section 8.3 Risk of Loss; Damage; Destruction; Condemnation. As to each Agreement, Borrower assumes all risk of loss of or damage to the Equipment governed thereby from any cause whatsoever, and no such loss of or damage to such Equipment nor defect therein nor unfitness or obsolescence thereof shall relieve Borrower of the obligation to make Loan Payments or to perform any other obligation under such Agreement except as may be provided in the Schedule comprising a part thereof. In the event of damage to any item of Equipment, Borrower immediately shall place the same in good repair, and, when received, shall apply the proceeds of any insurance recovery to the costs incurred in making such repairs. If Lender determines that any item of Equipment is lost, stolen, destroyed or damaged beyond repair, Borrower shall either (a) replace the same with like property of equal or greater value and useful life in good condition or (b) on the next date when a Loan Payment is due, pay to Lender (i) all amounts then owed by Borrower to Lender under the Agreement governing such Equipment, including the Loan Payment due on such date, and (ii) an amount equal to that portion of the

Prepayment Amount due on such date determined by Lender to be applicable to the Equipment lost, stolen, destroyed or damaged beyond repair.

Section 8.4 Insurance.

(a) Borrower shall, at its own expense, cause casualty, public liability and property damage insurance, for such amounts and against such hazards as Lender may reasonably require, to be carried and maintained, or demonstrate to the satisfaction of Lender that adequate self-insurance is provided with respect to the Collateral sufficient to protect the full replacement value of the Collateral and to protect Lender and Borrower from liability in all events. All insurance proceeds from casualty losses shall be payable to Lender and Borrower as hereinafter provided. Borrower shall furnish to Lender, upon request, Certificates of Insurance evidencing such coverage throughout the Term. Alternatively, upon the written approval of Lender, Borrower may insure the Collateral under a blanket insurance policy or policies which cover not only the Collateral but also other properties.

(b) Any insurance policy carried or maintained pursuant to this Section shall be so written or endorsed as to make losses, if any, payable to Lender and Borrower as their respective interests may appear and naming Lender as additional insured for liability. The Net Proceeds (as defined in Section 9.1) of the insurance required in this Section shall be applied as provided in Article IX hereto. Each insurance policy provided for in this section shall contain a provision to the effect that the insurance company shall not either cancel the policy, or modify the policy materially and adversely to the interest of Lender, without first giving written notice thereof to Lender at least thirty (30) days in advance of such cancellation or modification.

Section 8.5 Advances. In the event Borrower shall fail to maintain the full insurance coverage required by this Master Financing Agreement or shall fail to keep the Equipment in good repair and operating condition, Lender may (but shall be under no obligation to) purchase the required policies of insurance and pay the premiums on the same or may make such repairs or replacements as are necessary and provide for payment thereof; and all amounts so advanced therefore by Lender, together with interest thereon at the rate, to the extent permitted by law, equal to Prime plus three percent (3%) per annum, shall become Additional Payments immediately due and payable under Section 10.3 of this Master Financing Agreement.

Section 8.6 Modifications and Substitutions.

(a) Borrower shall not without the prior written consent of Lender make any material alterations, modifications, additions, substitutions, subtractions or improvements to the Equipment which cannot be removed without materially damaging the functional capabilities or economic value of the Equipment. In the event in the exercise of the Lender's remedies the Equipment is taken by Lender, Borrower, at its sole cost and expense, and at the request of Lender, will remove all alterations, modifications and additions and repair the Equipment as necessary to return the Equipment to the condition in which it was furnished, ordinary wear and tear and permitted modifications excepted.

(b) Notwithstanding the provisions of subparagraph (a) of this Section, Borrower may, with the prior written consent of Lender, substitute for parts, elements, portions

or all of the Equipment, other parts, elements, portions, equipment or facilities; provided, however, that any substitutions made pursuant to Borrower's obligations to make repairs referenced under Section 8.1 or 9.1 hereof shall not require such prior written consent. Borrower shall make any such permitted substitutions using only parts, elements, equipment or other material of equal quality to those contained in the Equipment as originally delivered to Borrower by the Vendor thereof. Borrower shall provide such documents or assurances as Lender may reasonably request to maintain or confirm Lender's security interest in the Equipment as so modified or substituted.

ARTICLE IX DAMAGE, DESTRUCTION AND CONDEMNATION; USE OF NET PROCEEDS

Section 9.1 Damage, Destruction and Condemnation. Unless Borrower shall have exercised the option to pay the Prepayment Amount as provided herein, if prior to the termination of the Term (x) the Equipment or any portion thereof is destroyed, lost, secreted, stolen or is damaged by fire or other casualty, or (y) title to, or the temporary use of, the Equipment or any part thereof or the estate of Borrower in the Equipment or any part thereof shall be taken under the exercise of the power of eminent domain by any governmental body or by any person, firm or corporation acting under governmental authority, then Borrower may, if and only if there is no Event of Default then continuing hereunder, at its option apply the Net Proceeds (as defined below) in whole or in part to (i) repair or replace such Equipment or any portion thereof, (ii) satisfy any obligations of Borrower pursuant to the provisions of the Master Financing Agreement, (iii) reduce on a pro rata basis Loan Payments attributable to such Equipment under the applicable Agreement, or (iv) satisfy any other obligations hereunder of Borrower and Lender shall make such net proceeds available to Borrower for such purposes. Any balance of the Net Proceeds remaining after application in accordance with the preceding sentence shall be paid to Borrower.

For purposes of Section 8.4 and this Article IX, the term "Net Proceeds" shall mean the amount remaining from the gross proceeds of any insurance claim or condemnation award after deducting all expenses (including reasonable attorneys' fees) incurred in the collection of such claim or award.

Section 9.2 Insufficiency of Net Proceeds. If the Net Proceeds are insufficient to pay in full the cost of any repair, restoration, modification, improvement or replacement referred to in Section 9.1 hereof, Borrower shall either (i) complete the work and pay any cost in excess of the amount of the Net Proceeds, in which event if Borrower shall make any payments pursuant to the provisions of this Section, Borrower shall not be entitled to any reimbursement therefor from Lender nor shall Borrower be entitled to any diminution of the amounts payable under Article VI hereof, or (ii) if Borrower is not then in default hereunder, pay to or cause to be paid to Lender the amount of the then applicable Prepayment Amount and, upon such payment, the Term shall terminate and Lender's security interest in the Equipment shall terminate as provided in Article XI hereof. The amount of the Net Proceeds in excess of the then applicable Purchase Price, if any, may be retained by Borrower.

ARTICLE X
DISCLAIMER OF WARRANTIES; VENDOR'S WARRANTIES;
ADDITIONAL PAYMENTS; USE OF THE EQUIPMENT

Section 10.1 Disclaimer of Warranties. LENDER MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, AS TO THE VALUE, DESIGN, COMPLIANCE WITH SPECIFICATIONS, QUALITY OF MATERIALS OR WORKMANSHIP, CONDITION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, USE OR OPERATION, SAFETY, PATENT, TRADEMARK OR COPYRIGHT INFRINGEMENT, TITLE OR FITNESS FOR USE OF THE EQUIPMENT, OR ANY COMPONENT THEREOF OR ANY OTHER WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, WITH RESPECT THERETO AND, AS TO LENDER, BORROWER'S PURCHASE OF THE EQUIPMENT SHALL BE ON AN "AS IS" BASIS. All such risks, as between Lender and Borrower, are to be borne by Borrower. Without limiting the foregoing, Lender shall have no responsibility or liability to Borrower or any other person with respect to any of the following: (i) any liability, loss or damage caused or alleged to be caused directly or indirectly by the Equipment, any inadequacy thereof, any deficiency or defect (latent or otherwise) therein, or any other circumstances in connection therewith, (ii) the use, operation or performance of the Equipment or any risks relating thereto, (iii) any interruption of service, loss of business or anticipated profits or consequential damages, or (iv) the delivery, operation, servicing, maintenance, repair, improvement or replacement of the Equipment. If, and so long as, no Event of Default exists under this Master Financing Agreement, Borrower shall be, and hereby is, authorized during the term of an Agreement to assert and enforce, at Borrower's sole cost and expense, from time to time, in the name of and for the account of Lender and/or Borrower, as their interests may appear, whatever claims and rights Borrower or Lender may have against the Vendor or any prior title holder or possessor of the Equipment. In no event shall Lender be liable for any loss or damage in connection with or arising out of this Master Financing Agreement, any Agreement, the Equipment, or the existence, furnishing, functioning or Borrower's use of any item or products or services provided for in this Master Financing Agreement.

Section 10.2 Vendor's Warranties. Borrower shall assert against Vendor from time to time whatever claims and rights including warranties of the Equipment which Borrower may have against the Vendor. Borrower's sole remedy for the breach of such warranty, indemnification or representation shall be against the Vendor of the Equipment, and not against Lender, nor shall such matter have any effect whatsoever on the rights and obligations of Lender with respect to this Master Financing Agreement, including the right to receive full and timely payments under this Master Financing Agreement. Borrower expressly acknowledges that in Lender's capacity as Lender hereunder Lender makes no representation or warranty whatsoever as to the existence or availability of such warranties of the Vendor of the Equipment.

Section 10.3 Additional Payments. Borrower shall pay to Lender as additional payments (the "Additional Payments") hereunder, in addition to the Loan Payments payable by Borrower, such amounts in each year as shall be required by Lender in payment of any reasonable costs and expenses, incurred by Lender in connection with the execution, performance or enforcement of this Master Financing Agreement, the financing of the Equipment, including but not limited to payment of all reasonable fees, costs and expenses and

all reasonable administrative costs of Lender in connection with the Equipment, reasonable expenses (including, without limitation, attorneys' fees and disbursements), reasonable fees of auditors or attorneys, insurance premiums not otherwise paid hereunder and all other reasonable, direct and necessary administrative costs of Lender or charges required to be paid by it in order to comply with the terms of, or to enforce its rights under, each Agreement. Such Additional Payments shall be billed to Borrower by Lender from time to time, together with a statement certifying that the amount so billed has been paid by Lender for one or more of the items described, or that such amount is then payable by Lender for such items. Amounts so billed shall be due and payable by Borrower within thirty (30) days after receipt of the bill. In addition to the foregoing items, "Additional Payments" shall also include any other amounts payable by Borrower to Lender under this Master Financing Agreement.

Section 10.4 Use of the Equipment. Borrower will not install, use, operate or maintain the Equipment improperly, carelessly, in violation of any applicable law or in a manner contrary to that contemplated by this Master Financing Agreement. Borrower shall secure all permits and licenses, if any, necessary for the installation and operation of the Equipment. Borrower shall comply in all respects (including, without limitation, with respect to the use, maintenance and operation of each item of the Equipment) with all laws of the jurisdictions in which its operations involving any component of Equipment may extend and of any legislative, executive, administrative or judicial body exercising any power or jurisdiction over the items of the Equipment or its rights or interests under this Master Financing Agreement. The Equipment shall not be moved by or on behalf of the Borrower from the site to any other location or used by any party other than Borrower for Borrower's institution purposes, except in strict accordance with the advance written consent of Lender. Any and all costs of moving the Equipment during a Term shall be borne solely by Borrower.

ARTICLE XI OPTION TO PREPAY

Section 11.1 Payment Rights. Lender's security interest in the Equipment identified in a particular Schedule shall be terminated upon payment in full of all Loan Payments as the same become due in accordance with the applicable Agreement and all other amounts due under this Master Financing Agreement, if any, with respect to such Agreement.

Section 11.2 Prepayment. Borrower may on any payment date, in addition to any Loan Payment then due, make a full prepayment of the Prepayment Amount, which amounts shall be paid directly to Lender by the Borrower, and as a result of such prepayment, Lender shall release the security interest in the Equipment.

Section 11.3 Consummation of Prepayment. Lender's security interest in the Equipment identified in a particular Schedule shall be terminated and released automatically in conjunction with the receipt of the full Prepayment Amount or the final Loan Payment and all other amounts due thereunder unless an Event of Default hereunder shall have occurred and be continuing as of such date. Such date may at the discretion of the Lender be extended for such additional period as Lender's counsel reasonably determines to be necessary to reflect the impact of, and void the risks related to, bankruptcy-related laws. On such date, Lender shall deliver to Borrower such termination statements and other documents and instruments as Borrower shall

reasonably require to evidence the release of all security interests of Lender in such Equipment to Borrower.

Section 11.4 Mandatory Payment. Subject to Section 12.2, all or substantially all of the assets of the Borrower, including the Equipment, may be acquired in any manner by another entity, subject to the opinion of a nationally recognized bond counsel, selected by the Borrower and satisfactory to Lender, as to the continued exclusion of the interest component of the Loan Payments from gross income for federal income tax purposes. However, if all or substantially all of the assets of the Borrower, including the Equipment, are acquired in any manner by another entity, Borrower may be required, at the direction of Lender, to prepay in whole the then applicable Prepayment Amount of all Prepayments identified under any Schedule to this Master Financing Agreement.

ARTICLE XII ASSIGNMENT, LEASING, MORTGAGING AND SELLING

Section 12.1 Assignment by Lender. This Master Financing Agreement, and the right to receive Loan Payments and the Prepayment Amount from Borrower hereunder, may not be assigned or reassigned in whole or in part to one or more assignees or subassignees by Lender at any time subsequent to its execution, without furnishing notice of such assignment to Borrower. No such assignment or reassignment shall be made to Borrower or any person related to it within the meaning of Section 147(a)(2) of the Code; provided, further, that no such assignment or reassignment shall be effective and binding on the Borrower unless and until (i) Borrower shall have received notice of the assignment or reassignment upon which Notice Borrower shall rely, disclosing the name and address of the assignee or subassignee, and (ii) in the event that such assignment or reassignment is made to a bank or trust company as trustee for holders of certificates representing interests in this Master Financing Agreement, such bank or trust company agrees to maintain, or cause to be maintained, a book-entry system by which a record of the names and addresses of such holders as of any particular time is kept. Upon such assignment, Borrower will reflect in a book entry the assignee designated in such notice of assignment, and shall agree to make all payments to the assignee designated in the notice of assignment, notwithstanding any claim, defense, set-off or counterclaim whatsoever (whether arising from a breach of this Master Financing Agreement or otherwise) that Borrower may from time to time have against Lender or the assignee. Borrower agrees to execute all documents, including notices of assignment and chattel mortgages or financing statements, which may be reasonably requested by Lender or its assignee to protect their interest in the Collateral and in this Master Financing Agreement.

Section 12.2 Sale, Assignment or Leasing by Borrower. This Master Financing Agreement and the interest of Borrower in the Equipment may not be sold, assumed, assigned or encumbered by Borrower without the prior written consent of Lender. No Agreement or interest therein and no Equipment shall be subject to involuntary assignment, lease, transfer or sale or to assignment, lease, transfer or sale by operation of law in any manner whatsoever except as expressly provided in this Master Financing Agreement and any such attempted assignment, lease, transfer or sale shall be void and of no effect and shall, at the option of Lender, terminate an Agreement and each and every financing of Equipment.

Section 12.3 Limitations of Liability. In no event, whether as a result of breach of contract, warranty, tort (including negligence or strict liability), indemnity or otherwise, shall Lender be liable for any special, consequential, incidental or penal damages including, but not limited to, loss of profit or revenue, loss of use of the Equipment or any associated equipment, service materials or software, damage to associated equipment, service materials or software, cost of capital, cost of substitute equipment, service materials or software, facilities, services or replacement power, down time costs or claims of Borrower's patients or constituents for such damages.

ARTICLE XIII EVENTS OF DEFAULT AND REMEDIES

Section 13.1 Events of Default. The following constitute "Events of Default" under this Master Financing Agreement and each Agreement:

- (a) failure by Borrower to pay to Lender when due any Loan Payment or any other payment required to be paid hereunder and the continuation of such failure for ten (10) days after such payment is due; or
- (b) failure by Borrower to maintain insurance on the Equipment in accordance with Section 8.4 hereof; or
- (c) failure by Borrower to observe and perform any other covenant, condition or agreement on its part to be observed or performed pursuant to this Master Financing Agreement or any Agreement for a period of twenty (20) days after written notice is given to Borrower by Lender, specifying such failure and requesting that it be remedied; provided, however, that if the failure stated in such notice cannot be corrected within such twenty (20) day period, Lender shall not unreasonably withhold its consent to an extension of such time if corrective action is instituted by Borrower within the applicable period and diligently pursued until the default is corrected; in the event Lender decides to withhold its consent to any such extension, it shall provide Borrower with a written notice of such decision including an explanation of why it was withholding its consent; or
- (d) initiation by Borrower or by others of a proceeding under any federal or state bankruptcy or insolvency law seeking relief under such laws concerning the indebtedness of Borrower; or
- (e) Borrower (i) is determined by Lender to have made any material false or misleading statement or representation in connection with an Agreement, or (ii) sells, assigns, leases, or otherwise transfers or encumbers all or any part of its interest in an Agreement or the Collateral without Lender's prior written consent except as otherwise provided in this Agreement (including without limitation Section 12.2 hereof), or (iii) permits a change in ownership or management control of Borrower without consent of Lender.

Section 13.2 Remedies on Default.

- (a) Whenever any Event of Default shall have occurred and be continuing under an Agreement or Agreements, Lender shall have the right, at its sole option without any

further demand or prior notice to Borrower, to take any one or any combination of the following remedial steps except insofar as the same are not available to secured parties under Article 9 of the UCC in effect in the State from time to time or are otherwise prohibited by applicable law:

- (i) By written notice to Borrower, declare immediately due and payable an amount equal to all Loan Payments and Additional Payments then due and unpaid, all interest accrued thereon and unpaid, all other amounts then due under this Master Financing Agreement and unpaid, and the entire unpaid principal portion of all remaining Loan Payments due during the Term, whereupon the same shall become immediately due and payable without any further action or notice;
- (ii) Require Borrower to assemble the Collateral listed in such Agreement at a place reasonably convenient to both Lender and Borrower and at a reasonable time; and use or operate the Collateral for the purpose of preserving it;
- (iii) With or without terminating any affected Agreement, take possession of the Collateral listed in such Agreement(s) wherever situated, without any court order or other process of law and without liability for entering the premises, and lease, or make other disposition of such Collateral for use over a term in a commercially reasonable manner, all for the account of Lender or Borrower; provided that Borrower shall remain directly liable for the deficiency, if any, between the rent or other amounts paid by a lessee of such Collateral pursuant to such lease or sublease during the same period of time, after deducting all costs and expenses, including reasonable attorney's fees and expenses, incurred with respect to the recovery, repair and storage of such Collateral during such period of time, and the sum of the Prepayment Amount plus Additional Payments and all other amounts due hereunder;
- (iv) With or without terminating any affected Agreement, take possession of the Collateral wherever situated listed in such Agreement(s), without any court order or other process of law and without liability for entering the premises, and sell any or all of such Collateral at a public or private sale, or otherwise dispose of, hold, use, operate, lease to others or keep idle such Collateral, with 10 days' notice to Borrower, all free and clear of any rights of Borrower; provided that any and all such actions be taken in a commercially reasonable manner. All proceeds from such sale to be applied in the following manner: FIRST, to pay all proper and reasonable costs and expenses associated with the recovery, repair, storage and sale of such Collateral, including reasonable attorneys' fees and expenses; SECOND, to pay (i) Lender the amount of all unpaid Loan Payments due under such Agreement(s), if any, which are then due and owing, together with interest and late charges thereon, (ii) Lender the then applicable Prepayment Amount under such Agreement(s) (taking into account the payment of past due Loan Payments as aforesaid), plus a pro-rata allocation of interest, at the rate utilized to establish the interest component for the Loan Payment next due pursuant to the applicable Schedule, from the next preceding due date of a Loan Payment until the date of payment by the buyer, and (iii) Lender any other amounts due thereunder, including indemnity payments, reimbursement of any advances, Additional Payments due under such Agreement(s), and other amounts payable to Lender hereunder; and THIRD, to pay

the remainder of the sale proceeds, purchase moneys or other amounts paid by a buyer of such Equipment, to Borrower;

(v) Proceed by appropriate court action to enforce performance by Borrower of the applicable covenants of this Master Financing Agreement, the applicable Agreement(s) or to recover for the breach thereof, including the payment of all amounts due from Borrower, in which event Borrower shall pay or repay to Lender all costs or such action or court action including without limitation, reasonable attorneys' fees; and

(vi) Take whatever action at law or in equity may appear necessary or desirable to enforce its rights with respect to the Collateral under such Agreement(s), in which event Borrower shall pay or repay to Lender all costs of such action or court action, including, without limitation, reasonable attorneys' fees.

(b) Notwithstanding any other remedy exercised hereunder, Borrower shall remain obligated to pay to Lender any unpaid portion of the Prepayment Amount due under such Agreement(s). To the extent permitted by applicable law, Borrower hereby waives any rights now or hereafter conferred by statute or otherwise which might require Lender to use, sell, lease or otherwise dispose of any Collateral under such Agreement(s) in mitigation of Lender's damages or which might otherwise limit or modify any of Lender's rights hereunder.

(c) All of Borrower's right, title and interest in any Collateral the possession of which is taken by Lender upon the occurrence of an Event of Default (including, without limitation, construction contracts, warranties, guaranties or completion assurances applicable to such Collateral) shall pass to Lender, and Borrower's rights in such Collateral shall terminate immediately upon such repossession, subject however, to Borrower's rights under Article XI to prepay and terminate the Agreement.

Section 13.3 Recovery of Equipment. If an Event of Default has occurred and is continuing, Borrower shall allow Lender to recover the Collateral at Borrower's sole cost and expense, including, without limitation, all costs of transportation. The cost of all transportation of Collateral of any nature prior to the expiration or prior termination of an Agreement will be at Borrower's sole expense. In the event that Borrower makes modifications to a site after any Collateral has been installed therein and such modifications impede the removal of the Collateral, the cost of removing the impediments and restoring the site shall be the sole expense of Borrower.

Section 13.4 No Remedy Exclusive. No remedy herein conferred upon or reserved to Lender is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Master Financing Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any Event of Default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right or power may be exercised from time to time and as often as may be deemed expedient. In order to entitle Lender to exercise any remedy reserved to it in this Article, it shall not be necessary to give any notice other than such notice as may be required by this Article XIII. All remedies herein conferred upon or reserved to Lender shall survive the termination of this Master Financing Agreement.

Section 13.5 Late Charge. Any Loan Payment, Additional Payment or other amounts payable by Borrower to or for the benefit of Lender hereunder and not paid by Borrower within ten (10) days of the due date thereof shall, to the extent permissible by law, bear a late charge equal to five percent (5%) of the amount of the past due Loan Payment, Additional Payment or other amounts payable.

ARTICLE XIV APPLICATION OF PROCEEDS, PROJECT FUND, ACQUISITION OF EQUIPMENT

Section 14.1 Application of Loan Proceeds. At the Closing of each Agreement, Lender shall pay or provide the Loan Proceeds in the amount and to the persons identified on the applicable Schedule. An amount not exceeding two percent (2%) of the Loan Proceeds, together with funds provided by Borrower, estimated to be needed to pay the costs associated with executing the Schedule, shall be disbursed or credited at the execution of each Agreement as payment of the costs associated with execution of such Agreement.

Section 14.2 Project Fund. The Lender will hold and administer the Loan Proceeds on behalf of the Borrower pursuant to the terms of the Project Fund Agreement.

Section 14.3 Completion of Acquisition of the Equipment. Borrower shall cause the Equipment to be acquired and installed free of any liens or claims of others except for this Master Financing Agreement. Completion of the acquisition of the Equipment identified by a particular Schedule shall be evidenced by Borrower's filing with Lender a Certificate of Acceptance. At such time the Lender shall execute and deliver such documents or assurances, including amendments to UCC filings, as may be necessary to reflect accurately the items of Equipment financed by the Loan Proceeds derived from such Agreement. If upon the filing of the Certificate, there remain unspent Loan Proceeds (other than proceeds to be used for Acquisition Costs, retained to ensure compliance with the terms of the Purchase Agreement), such unspent proceeds shall be used to prepay a proportionate part of each principal component of Loan Payments due or to become due over the then remaining term of the Term, or may be used for such other purpose as in the opinion of nationally recognized bond counsel will not cause the interest component of the Loan Payments to be includable in gross income for federal income tax purposes.

ARTICLE XV MISCELLANEOUS

Section 15.1 Notices. All notices, certificates or other communications hereunder shall be sufficiently given and shall be deemed given when delivered or three (3) days after the same are mailed by registered mail, postage prepaid, to the parties at their addresses specified at the beginning of this Master Financing Agreement.

Section 15.2 Binding Effect. This Master Financing Agreement shall inure to the benefit of and shall be binding upon Lender, Borrower and their respective successors and assigns, if any.

Section 15.3 Severability. In the event any provision of this Master Financing Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

Section 15.4 Amendments. To the extent permitted by law, the terms of this Master Financing Agreement shall not be waived, altered, modified, supplemented or amended in any manner whatsoever except by written instrument signed by the parties hereto, and then such waiver, consent, modification or change shall be effective only in the specific instance and for the specific purpose given.

Section 15.5 Execution in Counterparts. This Master Financing Agreement and each Schedule hereto may be executed in several counterparts, each of which shall be an original and all of which shall constitute one and the same instrument and any of the parties hereto may execute this Master Financing Agreement and each Schedule hereto by signing any such counterpart.

Section 15.6 Applicable Law. THIS MASTER FINANCING AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS, EXCLUDING THE LAWS RELATING TO THE CHOICE OF LAW, OF THE STATE OF CONNECTICUT.

Section 15.7 Captions. The captions or headings in this Master Financing Agreement are for convenience only and in no way define, limit or describe the scope or intent of any provisions or sections of this Master Financing Agreement.

Section 15.8 Entire Agreement. This Master Financing Agreement together with Schedules, and the attachments thereto, attached hereto constitutes the entire agreement between Lender and Borrower. There are no understandings, agreements, representations or warranties, express or implied, not specified herein regarding this Master Financing Agreement or the Equipment financed hereunder. Any terms and conditions of any purchase order or other document submitted by Borrower in connection with this Master Financing Agreement which are in addition to or inconsistent with the terms and conditions of this Master Financing Agreement will not be binding on Lender and will not apply to this Master Financing Agreement. An Agreement including the respective Schedule and exhibits hereto, shall not be effective or binding upon Borrower until it is signed on its behalf by one of its Authorized Officers. An Agreement, including the respective Schedule and exhibits hereto, shall not be effective or binding upon Lender until (i) it is signed on its behalf by one of its authorized officers, and (ii) it has been reviewed, approved, and acknowledged in writing to be credit approved at Lender's principal office located at [_____].

Section 15.9 Waiver. Lender's or Borrower's failure to enforce at any time or for any period of time any provision of an Agreement shall not be construed to be a waiver of such provision or of the right of Lender or Borrower thereafter to enforce each and every provision. No waiver of any right, default or remedy shall be effective unless it is made expressly and in writing. No waiver by Lender of any right, default or remedy of default shall constitute a waiver of any other right, default or remedy of default, or a waiver of any of Lender's rights.

Section 15.10 Survivability. All of the limitations of liability and indemnities contained in an Agreement shall continue in full force and effect notwithstanding the expiration or early termination of the Agreement and are expressly made for the benefit of, and shall be enforceable by, Lender or its successors and assigns.

Section 15.11 Record Retention and Access.

(a) Expenditure of the Loan Proceeds will be recorded no later than the later of 18 months after the date a particular expenditure is paid or 18 months after the date the Equipment to which the expenditure relates is “placed in service” (as such term is defined in Treas. Reg. § 1.150-2(c)). All allocations will be made, in all events, by the date 60 days after the fifth anniversary of the date hereof or the date 60 days after the termination of this Master Financing Agreement, if earlier. Any allocation made pursuant to requisitions of proceeds under the Project Fund Agreement is preliminary in nature and subject to final allocation which shall be done in accordance with this paragraph. Such records will be kept by the Borrower with its records in connection with the Master Financing Agreement and will be retained for the period of at least six years after the termination of this Master Financing Agreement.

(b) The obligations of the parties set forth in this Section 15.11 shall continue in full force and effect notwithstanding the expiration or early termination of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Master Financing Agreement under seal in their respective corporate names by their duly Authorized Officers, all as of the date first written above.

[_____]
as Lender

By: _____
Name:
Title:

[_____]
as Borrower

By: _____
Name:
Title:

EXHIBIT A TO MASTER FINANCING AGREEMENT

SCHEDULE NO. [__]
TO MASTER FINANCING AGREEMENT
by and among

[_____]

as Lender

and

[_____]

as Borrower

Dated as of [____], 201__

THIS SCHEDULE NO. [__] (this "Schedule") to the Master Financing Agreement identified above (the "Master Financing Agreement") is entered into as of this _____, 201__ by and among [____], as Lender, and [____], as Borrower ("Borrower"). All of the provisions of the Master Financing Agreement are incorporated herein by reference as if fully set forth herein and capitalized terms used herein and not defined shall have the meanings assigned them in the Master Financing Agreement.

1. The Master Financing Agreement and this Schedule No. [__] jointly constitute an Agreement (this "Agreement"). Lender hereby agrees to loan to the Borrower and Borrower agrees to borrow from the Lender subject to the provisions of the Agreement, the funds for the purchase of the Equipment identified below:

[____].

2. Borrower hereby certifies that the description of the Equipment set forth above is accurate and reasonably identifies it for UCC purposes. The Equipment identified in item 1 above shall be located at:

Street	City	County	State
[____]	[____]	[____]	Connecticut

3. The Loan Payment dates, the Loan Payment amounts (including the principal and interest components thereof) and the outstanding balance owed during the term of the Master Financing Agreement are as set forth in Exhibit B hereto.

4. The Loan Proceeds which Lender shall pay or provide to Borrower, or to Vendors, as appropriate, in connection with this Schedule is \$[____]. Loan Proceeds

in the amount of \$[_____] shall be disbursed by Lender upon receipt of Borrower's Requisition Certificate attached as Attachment A.

5. Until Borrower receives written notification to the contrary, all payments due under the Master Financing Agreement, including but not limited to Loan Payments, are to be paid to the Lender at the following address:

[_____]
[_____]
[_____]

6. Borrower further represents, covenants and warrants that all of its representations of Borrower contained in the Master Financing Agreement were true and accurate as of the date made, remain true and accurate as of the date of this Schedule and are hereby reaffirmed and that it will perform all its obligations and comply with all terms and provisions applicable to it contained in the Master Financing Agreement.

7. Borrower shall deliver an opinion of counsel, an arbitrage certificate and an IRS Form 8038 concurrently with the execution and delivery of each Schedule in the forms of Attachment C, Attachment D and Attachment H, respectively, to Schedule [__] of the Master Financing Agreement.

8. Borrower further represents, covenants and warrants that it will not take, cause to be taken or fail to take any action which will cause the interest component of any Loan Payment to be or become subject to federal income taxation under the Code and that all of its representations, covenants and warranties of Borrower contained in the Master Financing Agreement were true and accurate as of the date made, remain true and accurate as of the date of this Schedule and are hereby reaffirmed.

9. The Equipment will be used by Borrower to fulfill its governmental purposes.

10. NOTICE IS HEREBY GIVEN THAT FALSE STATEMENTS INTENTIONALLY MADE HEREIN ARE SUBJECT TO SECTION 53a-157b OF THE CONNECTICUT GENERAL STATUTES GOVERNING THE PENALTY FOR WRITTEN STATEMENTS NOT BELIEVED TO BE TRUE WHICH ARE INTENDED TO MISLEAD A PUBLIC SERVANT IN THE PERFORMANCE OF HIS OR HER OFFICIAL DUTIES.

11. Borrower shall deliver or cause to be delivered, concurrently with the execution and delivery of each Schedule, documents in the respective forms of Attachment A through I to Schedule __ of the Master Financing Agreement.

12. Attached hereto as Attachment A and incorporated herein by reference is an original Acceptance Certificate, executed by an Authorized Officer of Borrower, with respect to the Equipment identified in item 1 above.

13. Attached hereto as Attachment B and incorporated herein by reference is an original Incumbency Certificate of the Secretary of Borrower certifying the names, titles and signatures of the Authorized Officers of Borrower.

14. Attached hereto as Attachment C is an original opinion of legal counsel to Borrower relating to the Agreement.

15. Attached hereto as Attachment D and incorporated herein by reference is an Arbitrage Certificate of Borrower.

16. Attached hereto as Attachment E is a certified copy of resolutions of Borrower's governing body authorizing the Master Financing Agreement and the Agreement.

17. Attached hereto as Attachment F are copies of an executed and filed financing statement evidencing the Lender's security interest in the Equipment.

18. Attached hereto as Attachment G is an insurance certificate in the form required by Section 8.4 of the Master Financing Agreement.

19. Attached hereto as Attachment H is an IRS Form 8038 of the Borrower.

20. Attached hereto as Attachment I is a Project Fund Agreement between Borrower and Lender.

IN WITNESS WHEREOF, the parties hereunto affix their signatures to this Schedule No. [____] as of the day and year first written above.

[____]
as Lender

By: _____
Name:
Title:

[____]
as Borrower

By: _____
Name:
Title:

Counterpart No. ____ of 4 manually executed and serially numbered counterparts. To the extent of this Schedule constitutes chattel paper (as defined in the Uniform Commercial Code), no security interest herein may be created through the transfer or possession of any Counterpart other than Counterpart No. 1.

EXHIBIT B TO MASTER FINANCING AGREEMENT

[Borrower]

Nominal Annual Rate [_____]%

AMORTIZATION SCHEDULE - Normal Amortization

#	Date	Payment	Interest	Principal	Balance
---	------	---------	----------	-----------	---------

Loan

ATTACHMENT A TO SCHEDULE NO. [__]

Borrower's Requisition Certificate

Part I:

[_____] ("Borrower"), as Borrower under that certain MASTER FINANCING AGREEMENT dated as of [_____] ___, 201___, and under Schedule No. [__] thereto dated as of [_____] ___, 201___ (collectively, the "Agreement"), each with [_____] as Lender ("Lender"), hereby acknowledges that the Equipment described in Part II below (the "Equipment"), is of a size, design, capacity and manufacture selected by Borrower, has been delivered to the location indicated on Schedule No. [__], inspected by Borrower, found to be properly installed, in good condition and functioning according to manufacturers specifications on the Equipment Acceptance Date set forth below, and that, as of such date it has accepted such Equipment and hereby certifies:

(a) That such Equipment is fully insured in accordance with Section 8.4 of the Master Financing Agreement.

(b) No Event of Default under the Agreement exists, and no condition, event or act exists that, with notice or lapse of time, or both, would become an Event of Default under the Agreement.

Part II:

Equipment Acceptance Date: [_____] 2007.

The Equipment which is governed by the Agreement identified in Part I above is as follows:

[_____]

Part III:

Attached are copies of the invoices of the Vendor(s) for the Equipment listed herein, and the Borrower's cancelled checks, if applicable, with regard to such Equipment.

Part IV:

The Loan Proceeds shall be disbursed as follows:

<u>Amount</u>	<u>Payee</u>	<u>Purpose</u>
---------------	--------------	----------------

Executed as of the Equipment Acceptance Date.

[_____]
As Borrower

By: _____
Name:
Title:

Acknowledged as of the
Date first above written:

[_____]
as Lender

By: _____
Name:
Title:

ATTACHMENT B TO SCHEDULE NO. [__]

Incumbency Certificate of the Borrower

I, _____, do hereby certify that I am the duly elected or appointed Town/City Clerk of [____], a municipality existing under the laws of the State of Connecticut, that I have custody of the records of such municipality, and that, as of the date hereof, the individuals named below are the duly elected and appointed officers of such municipality holding the offices set forth opposite their respective names. I further certify that (i) the signatures set opposite their respective names and titles are their true and authentic signatures and (ii) such officers have the authority on behalf of such entity to enter into that certain Master Financing Agreement dated as of [____], 201__, and that certain Schedule No. [__] dated as of [____], 201__, both between such entity, as Borrower and [____] as Lender.

NAME	TITLE	SIGNATURE
[_____]	[_____]	_____

IN WITNESS WHEREOF, I have duly executed this certificate and affixed the seal of such entity hereto on _____, 201__.

SEAL

Secretary

ATTACHMENT C TO SCHEDULE NO. []

[], 201_

[Lender]

[]

[]

Ladies and Gentlemen:

We have acted as special counsel to _____ (the "Borrower") in connection with the execution and delivery by the Borrower of the Master Financing Agreement (the "Loan Agreement") dated as of [], 201_ among [], as Lender ("Lender"), and Borrower, and Schedule No. [] thereto dated [], 201_. The Loan Agreement, Schedule No. [] and the attachments and exhibits related thereto are referred to herein as the "Agreement."

As to questions of fact material to our opinion we have relied upon representations of Borrower contained in the Agreement, the certified proceedings and other certifications of public officials furnished to us, and certifications by officials of Borrower without undertaking to verify the same by independent investigation.

The Borrower has in the Agreement agreed to pay the principal and interest components of the Loan Payments (as hereinafter defined) due thereunder.

The Internal Revenue Code of 1986, as amended (the "Code"), sets forth certain requirements which must be met subsequent to the issuance and delivery of the Agreement in order that the interest component of the Loan Payments will be and remain excludable from gross income under Section 103 of the Code. Included among these continuing requirements are (i) certain restrictions and prohibitions on the use and investment of proceeds and other amounts, (ii) required ownership of the Equipment by a Section 501(c)(3) organization or governmental unit, (iii) limits on the amount of tax exempt financing from which certain users of the loan-financed facility (and related parties) may benefit, and (iv) the rebate to the United States of certain earnings in respect of investments. Failure to comply with any of such continuing requirements may cause the interest component of the Loan Payments to be includable in gross income for Federal income tax purposes retroactively to the date of the Agreement. In the Agreement, Borrower has made certain covenants with respect to the exclusion of the interest component of the Loan Payments from gross income for Federal income tax purposes pursuant to Section 103(a) of the Code. The Borrower has also covenanted to comply with certain procedures, and have made certain representations and certifications, designed to assure satisfaction of the requirements of the Code. The opinion set forth herein in paragraphs 7 and 8 below as to federal and state income tax matters assumes continuing compliance with such covenants and the accuracy, in all material aspects, of such representations and certifications. In rendering the opinion in paragraphs 7 and 8 below, we have relied upon the representations and the covenants in the Arbitrage Certificate of Borrower and the covenants and representations as

to various provisions of the Code and Treasury Regulations contained in the Agreement (such covenants and representations and Certificates being hereinafter referred to as the “Tax Compliance Provisions”), as to which matters we have made no independent investigation of the accuracy of such representations or the capacity of Borrower to comply with such covenants or whether Borrower fully comprehends the nature or scope of the information, duties and obligations required by the Tax Compliance Provisions. However, nothing has come to our attention which would indicate that the Tax Compliance Provisions contain a material misstatement of fact by Borrower or omit to state a fact material to the representations and covenants of Borrower contained therein and necessary for the opinion in paragraph 7 below.

We have examined the Constitution and laws of the State of Connecticut (the “State”), the Agreement, and such certified proceedings and other papers as we deemed necessary to render this opinion. Based on our examination, we are of the opinion, as of the date hereof and under existing law, as follows:

1. The Borrower is a duly created and validly existing body politic and corporate constituting a political subdivision of the State with the power to enter into and perform the Agreement.

2. The Agreement has been duly authorized, executed and delivered by Borrower and is a valid, binding and enforceable obligation of the Borrower, except as enforcement may be limited as described in the penultimate paragraph of this letter.

3. The security interest granted under the Agreement in the Equipment described in Schedule No.[____] has been duly created and financing statements relating to such security interest have been duly executed by Borrower and filed pursuant to the State’s Uniform Commercial Code with the Secretary of State of the State [and the Land Records in [____].] No other actions are required by State law to perfect such security interest. Based on a search dated [_____] performed by [_____] the security interest in Equipment described in Schedule No. [__] granted under the Agreement is subject to no prior lien or security interest which has been properly recorded or filed in the State showing Borrower as debtor.

4. Borrower has taken all steps legally required as a condition precedent to the execution and delivery of the Agreement and to permit the commencement of the acquisition, installation and operation of the Equipment. Borrower has made all submissions to governmental authorities and has obtained, and there are currently in full force and effect, all consents, approvals, authorizations, accreditations, licenses, permits and orders of any governmental or regulatory authority that are required to be obtained by Borrower to enable the Equipment to be acquired and installed in accordance with the plans and specifications therefore (to the extent such approvals and permits are needed at this time, given the current status of the acquisition, installation, and operation of the Equipment). Based upon inquiry of appropriate officers of Borrower, we have no reason to believe that any approvals and permits hereafter required for the acquisition and installation of the Equipment, and to allow the Equipment to be operated by Borrower in the manner for which it was designed, will not be granted.

5. Borrower will be the owner of the Equipment financed under the Agreement for federal income tax purposes.

6. The Equipment financed pursuant to the Agreement constitutes personal property and when subjected to use by Borrower will not be or become fixtures under applicable law.

7. Under existing statutes, regulations, rulings and court decisions and assuming the accuracy of the representations and the continuing compliance by the Borrower with the covenants, all as set forth in the Tax Compliance Provisions, the interest component of the Loan Payments under the Loan Agreement is not includable in gross income for Federal income tax purposes under Section 103 of the Code. The interest component of the Loan Payments is not an “item of tax preference” for purposes of computing the federal alternative minimum tax on individuals and corporations. However, the interest component of the Loan Payments payable to corporations (other than Subchapter S corporations, Regulated Investment Companies, Real Estate Investment Trusts and Real Estate Mortgage Investment Conduits) will be included in the calculation of adjusted current earnings, a portion of which is an adjustment to corporate alternative minimum taxable income for purposes of calculating the alternative minimum tax imposed on corporations (but not individuals).

8. Under existing law, the interest component of the Loan Payments payable under the Loan Agreement is not included in Connecticut taxable income for purposes of the Connecticut income tax on individuals, trusts and estates, and is excluded from amounts on which the net Connecticut minimum tax is based in the case of individuals, trusts and estates required to pay the federal alternative minimum tax.

Certain requirements and procedures contained or referred to in the Agreement and other relevant documents may be changed and certain actions may be taken under the circumstances and subject to the terms and conditions set forth in such documents, upon the advice or with the approving opinion of nationally recognized bond counsel. We express no opinion as to the Agreement or the interest portion of Loan Payments made thereunder if any change occurs or action is taken upon the advice or approval of any such other bond counsel.

Except as stated in the preceding paragraphs (7) and (8), we express no opinion regarding any Federal or State tax consequences arising with respect to the loan transaction pursuant to the Agreement.

It is to be understood that the enforcement of the terms of the Agreement is subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted to the extent constitutionally applicable and that their enforcement may also be subject to the exercise of judicial discretion in appropriate cases.

Our opinions set forth in this letter are based upon the facts in existence and laws in effect on the date hereof and we expressly disclaim any obligation to update our opinions herein, regardless of whether changes in such facts or laws come to our attention after the delivery hereof. This opinion letter is solely for the benefit of the addressees hereof in connection with the consummation of the transactions contemplated by the Agreement. This opinion letter may not be relied upon in any manner by any other person, other than permitted successors and assigns of Lender, and may not be disclosed, quoted, filed with a governmental agency or otherwise referred to without our express prior written consent.

Very truly yours,

[Name of Firm]

By: _____

ATTACHMENT D TO SCHEDULE NO.[__]

Arbitrage Certificate of Borrower

I, [____], [title] of [____] (the "Borrower"), certify as follows with respect to the financing of certain equipment pursuant to the Master Financing Agreement, dated as of [____], 201_ (the "Master Financing Agreement"), between the Borrower and [____], as Lender ("Lender"), as supplemented by Schedule No. [__] dated as of [____], 201_ ("Schedule No. [__]"). Terms used herein have the same meaning as defined in the Master Financing Agreement and in Schedule No. [__].

The Agreement bears interest at a fixed rate as described in Schedule No. [__]

1. Amount of Issue. The principal amount of the Agreement, \$[____], does not exceed the amount necessary to acquire the Equipment and to pay costs of issuance. Total Acquisition Costs are \$[____], which is equal to the Loan Proceeds of the Agreement available to pay Acquisition Costs and costs of issuance of the Agreement. It is expected that all earnings on the Loan Proceeds will be used to pay the interest portion of the Loan Payments during the period of acquisition and installation of the Equipment, for which the Borrower will receive a credit.

2. Loan Proceeds.

(a) Use of Loan Proceeds. The Loan Proceeds of the Agreement are \$[____] (issue price of \$[____]). The Loan Proceeds will be applied, either directly or indirectly to the cost of the Equipment, by payment to or reimbursement of the Vendors of the Equipment. Of these sale proceeds, no more than \$[____] will be expended on the date of issuance on the Agreement to pay costs of issuance, which amount is equal to or less than two percent (2%) of the amount of the Loan Proceeds. Regarding the costs of issuance, any such amount in excess of \$[____] shall be paid by the Borrower from its own equity contribution. No Loan Proceeds will be used to pay, refund, retire or replace any governmental obligations previously issued.

(b) Expenditure of Loan Proceeds. Loan Proceeds will be invested without regard to yield restriction pending payment of the cost of acquiring and installing the Equipment. In this regard, the Borrower has entered, or within six (6) months of this date will enter into binding obligations to third parties to expend at least five percent (5%) of the Loan Proceeds. Completion of the acquisition and installation of the Equipment and the allocation of Loan Proceeds to expenditures will proceed with due diligence, and at least eighty-five (85%) of the Loan Proceeds will be spent on such Equipment no later than three (3) years after the date of this Agreement.

3. No Sale or Lease of Equipment. Borrower does not expect to sell or lease or otherwise dispose of any portion of the Equipment while the Agreement is outstanding.

4. No Sinking Fund or Collateral; No Replacement. Borrower has not established and does not expect to establish any sinking fund, debt service fund, redemption fund, reserve

fund, replacement fund or similar fund to be used to pay, directly or indirectly, principal or interest on the Agreement. Borrower has not pledged or otherwise restricted and does not expect to pledge or restrict any other funds or property which as a result of the pledge or restriction would be reasonably assured to be available to pay, directly or indirectly, principal or interest on the Agreement, even if Borrower encounters financial difficulties.

5. No Interest Rate Swap or Hedge. The Borrower will not enter into any interest rate swap, hedge or other financial arrangement to manage the interest rate risk in respect of the Loan Payments, unless there is submitted to the Borrower an opinion of nationally recognized bond counsel to the effect that such swap, hedge or other arrangement will not adversely affect the tax-exempt treatment of the interest portion of the Loan Payments.

6. No Special Arrangement. Neither Borrower nor any related person (within the meaning of Section 144(a)(3) of the Code) has or will enter into any arrangement, formal or informal, for the purchase of any interest in the Agreement as Lender in an amount related to the amount made available to Borrower pursuant to the Agreement.

7. Arbitrage. The Borrower expects that all proceeds of the Agreement will be spent within six months and, therefore, does not expect to earn amounts subject to rebate. Notwithstanding the foregoing, Borrower has covenanted in the Master Financing Agreement and hereby confirms that it will make or cause to be made all rebate payments, if any, due to the United States under Section 148(f) of the Code with respect to moneys and investments held under the Agreement. Borrower also will take any and all other actions lawfully within its powers so as to maintain the exclusion from gross income for federal income tax purposes of the interest component to the Loan Payments. Borrower will not take or permit any action to be taken, nor intentionally use any portion of the proceeds of the Agreement in a manner which would cause the Agreement to be an arbitrage bond under Section 148 of the Code or violate the provisions of that Section.

8. Financing Fees. Other than financing fees paid in accordance with the Master Financing Agreement, Borrower has paid and will pay no other fees to the Lender in connection with the Agreement.

9. Other Matters. To the best of my knowledge, information and belief, the expectations stated herein are reasonable.

[BORROWER]

By: _____
Name:
Title:

Dated: [_____], 201_

ATTACHMENT E

**Resolution of the Board of Directors of Borrower
Regarding Financing of Certain Equipment**

ATTACHMENT F TO SCHEDULE NO. [__]

Copies of Filed Financing Statements Showing Perfection of
Security Interest in the Property and Assignment of Security
Interest to Lender

SEE ATTACHED.

ATTACHMENT G TO SCHEDULE NO. [__]

Insurance Certificate Required By Section 8.4
of Master Financing Agreement

SEE ATTACHED.

ATTACHMENT H TO SCHEDULE NO. [__]

IRS Form 8038

SEE ATTACHED.

ATTACHMENT I TO SCHEDULE NO. [__]

PROJECT FUND AGREEMENT

This PROJECT FUND AGREEMENT, dated as of [____], 201_ (the “Project Fund Agreement”) between [_____] (“Borrower”) and [_____] (the “Lender”).

WITNESSETH

WHEREAS, the Lender and Borrower are parties to a Master Financing Agreement dated as of [____], 201_ (the “Master Financing Agreement”), as supplemented by a Schedule No. [__], dated as of [____], 201_ (“Schedule No. [__]”), together with the Master Financing Agreement, the “Agreement”); and

WHEREAS, pursuant to the Agreement, the Lender has made payments in the amount of \$[_____] for the financing of the Acquisition Costs as described in the Agreement, which amount has been provided to the Borrower to be applied towards Acquisition Costs incurred by Borrower;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree to as follows:

1. Capitalized terms not otherwise defined in this Project Fund Agreement shall have the meanings indicated in the Master Financing Agreement.

2. The Lender agrees to hold and administer on behalf of the Borrower the amount of \$[_____] (representing Loan Proceeds of \$[_____] less costs of issuance in an amount of \$[_____]) received from Lender (the “Project Fund”) to the Borrower.

3. Borrower shall utilize the Project Fund to pay for Acquisition Costs as detailed in the Agreement. Prior to any disbursement from the Project Fund, Borrower shall provide to the Lender, for its written approval, an invoice or other documentation indicating the type of Acquisition Cost, the amount due and the name and address of the payee, which approval shall not be unreasonably withheld and which shall be determined promptly upon receipt of the aforementioned documentation.

4. The Project Fund shall be held and/or invested by the Lender as directed by Borrower in Permitted Investments, as hereinafter defined, pursuant to this Project Fund Agreement and accounted for separately on the books and records of the Lender. As used in this Agreement, the term “Permitted Investments” means (a) money market funds registered under the Investment Company Act of 1940 whose shares are registered under the Securities Act of 1933 and which have a rating of “AAAm-G,” “AAAm” or “AAm” of Standard & Poor’s Ratings Services; or (b) certificates of deposit issued by or other forms of deposit in any national or state bank to the extent that such deposits are fully insured by the Federal Deposit Insurance Corporation or any successor agency which is backed by the full faith and credit of the United States.

5. Borrower shall notify the Lender upon payment of all Acquisition Costs and certification of project completion. Any remaining Project Fund monies held by the Lender after payment of all Acquisition Costs must be applied within sixty (60) days to pay or prepay Loan Payments due under, and in accordance with, the Agreement.

6. In the event the monies held by the Lender are not spent so as to meet any applicable exemption from Rebate, the Lender shall cooperate with the Borrower in computing the amount of any "Excess" (See Section 2.4 of the Master Financing Agreement) and the Borrower will be responsible for making payment of any Rebate due either from earnings on invested amounts or from other funds held by Borrower.

7. The Borrower agrees to provide the Lender with the following certification as a condition precedent for receiving the transfer of the monies contained in the Project Fund.

a. The Borrower hereby certifies that the monies contained in the Project Fund will be used exclusively for the Project(s) described in the Agreement.

b. The Borrower hereby agrees to provide the Lender with a certificate upon completion of the Project(s) that all necessary monies contained in the Project Fund have been spent in accordance with the Agreement and the TEFRA notice, and this Project Fund Agreement.

8. The Borrower hereby agrees to indemnify the Lender and hold the Lender harmless from and against any claim, loss, cost (including reasonable attorney's fees), expenses, damage, right, demand or cause of action of any nature whatsoever in connection with, or arising from this Project Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Project Fund Agreement by their duly authorized officers, all as of the date written above.

[_____]
as Borrower

By: _____
Name:
Title:

[_____]
as Lender

By: _____
Name:
Title:

Exhibit 1

CONTRACT 12PSX0153

Between

THE STATE OF CONNECTICUT

Acting by its

DEPARTMENT OF ADMINISTRATIVE SERVICES

AND

Awarded Contractor

FOR
ENERGY SAVINGS PERFORMANCE CONTRACTING SERVICES

, 201

Contract Award Date

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- 63. Governmental Enactments

Exhibit A – Energy-Savings Performance Project Statement of Work

Exhibit B – RFP to Selected QESPs for a Cost Effective Feasibility Analysis

Exhibit C – Investment-Grade Energy Audit and Project Development Proposal

Exhibit D – Cost and Pricing

Exhibit E – Notice to Executive Branch State Contractors and Prospective State Contractors of
Campaign Contribution and Solicitation Limitations

This Contract (the "Contract") is made by and between, _____ (the "Contractor" or "QESP") with a principal place of business at _____, acting by _____, its _____ and the State of Connecticut, Department of Administrative Services ("DAS"), with a principal place of business at 165 Capitol Ave, Hartford, Connecticut 06106-1659, acting by Martin W. Anderson, Ph.D., its Deputy Commissioner, in accordance with Sections 4a-2 and 4a-51 of the Connecticut General Statutes.

The Contractor and the State agree as follows:

1. **Definitions**. Unless otherwise indicated, the following terms shall have the following corresponding definitions for this Contract and all exhibits, unless otherwise noted in the exhibits, in which case the definition in the exhibit controls:
 - (a) **Acts**: Those acts of commission and omission.
 - (b) **Amend** (in any part of speech, however conjugated): Any altering, by addition, deletion, modification or otherwise, of any part of this Contract, including extensions, or its exhibits or Final Exhibits.
 - (c) **Claims**: All actions, suits, claims, demands, investigations and proceedings of any kind, open, pending or threatened, whether mature, unmatured, contingent, known or unknown, at law or in equity, in any forum.
 - (d) **Confidential Information**: Any information about a client, including but not limited to first name and last name, or first initial and last name, in combination with any one or more of the following related to such client: (a) Social Security Number; (b) driver's license number or State-issued identification card number; (c) date of birth; and (d) financial account number, or credit or debit card number, with or without any required security code, access code, personal identification number or password, that would permit access to a client's financial account. Without limiting the foregoing, Confidential Information shall also include any information that the Department classifies as "confidential" or "restricted." Confidential Information shall not include information that may be lawfully obtained from publicly available sources or from federal, state, or local government records which are lawfully made available to the general public.
 - (e) **Confidential Information Breach**: An instance where an unauthorized person or entity accesses Confidential Information in any manner, including but not limited to the following occurrences: (1) any Confidential Information that is not encrypted or protected is misplaced, lost, stolen or in any way compromised; (2) one or more third parties have had access to or taken control or possession of any Confidential Information that is not encrypted or protected without prior written authorization from the State; (3) the unauthorized acquisition of encrypted or protected Confidential Information together with the confidential process or key that is capable of compromising the integrity of the Confidential Information; or (4) if there is a substantial risk of identity theft or fraud to the client, the Contractor, the Department or State.

- (f) Contractor Parties: A Contractor's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the Contractor is in privity of oral or written contract and the Contractor intends for such other person or entity to Perform under the Contract in any capacity.
- (g) Cost Effective: The savings resulting from the energy-savings measures outweigh the costs of the measures, including, but not limited to, any financing costs, provided the payback period for any financing provided pursuant to 2011 Conn. Pub. Acts 80, Section 23 ("Public Act 11-80") is less than the functional life of the proposed energy-savings measures and the payback period does not exceed fifteen years.
- (h) Day: All calendar days other than Saturdays, Sundays and days designated as national or State of Connecticut holidays upon which banks in Connecticut are closed.
- (i) Department: Any and all State Agencies and Municipalities who participate in the ESPCP.
- (j) Energy-Savings Measure (ESM): Any improvement to facilities or other energy-consuming systems designed to reduce energy or water consumption and operating costs and increase the operating efficiency of facilities or systems for their appointed functions. "Energy-savings measure" includes, but is not limited to, one or more of the following:
1. Replacement or modification of lighting and electrical components, fixtures or systems, including daylighting systems, improvements in street lighting efficiency or computer power management software;
 2. Class I renewable energy or solar thermal systems;
 3. Cogeneration systems that produce steam or forms of energy, such as heat or electricity, for use primarily within a building or complex of buildings;
 4. Automated or computerized energy control systems;
 5. Heating, ventilation or air conditioning system modifications or replacements;
 6. Indoor air quality improvements that conform to applicable building code requirements;
 7. Water-conserving fixtures, appliances and equipment or the substitution of non-water-using fixtures, appliances and equipment, or water-conserving landscape irrigation equipment; and
 8. Changes in operation and maintenance practices;
 9. Replacement or modification of windows or doors; and
 10. Installation or addition of insulation.
- (k) Energy-Savings Performance Contract (ESPC): A contract between the State Agency or Municipality and a qualified energy service provider for evaluation, recommendation and implementation of one or more energy-savings measures. An energy-savings performance contract shall be a guaranteed energy-savings performance contract, which shall include, but not be limited to, (A) the design and installation of equipment and, if applicable, operation and maintenance of any of the measures implemented; and (B) guaranteed annual savings that meet or exceed the total annual contract payments made by the State Agency or Municipality for such contract, including financing charges or capital costs to be incurred by or on behalf of the State Agency or Municipality over the life of the contract.
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- (l) Equipment: Goods which the QESP is to install in accordance with and as set forth in Schedule R, Equipment to be Installed by QESP, to Exhibit A to this Contract, Energy-Savings Performance Project Statement of Work (“SOW”).
 - (m) Final Exhibits: The Exhibits attached to this Contract as of its effective date in blank or template form and which the Department and Contractor subsequently negotiate, fill in, finalize, sign and date in order to implement a project under this Contract in accordance with the ESPCP.
 - (n) Force Majeure: Events that materially affect the cost of the Work or the time schedule within which to Perform and are outside the control of the party asserting that such an event has occurred, including, but not limited to, labor troubles unrelated to the Contractor, failure of or inadequate permanent power, unavoidable casualties, fire not caused by the Contractor, extraordinary weather conditions, disasters, riots, acts of God, insurrection or war.
 - (o) Goods: All things which are movable, including, but not limited to, supplies, materials, equipment, hardware, software, specially manufactured things, a component incorporated into another thing and things that are attached to real property and that may be severed from the real property without material harm to the things, together and with any and all additions, modifications, attachments, replacements and parts.
 - (p) Investment-Grade Energy Audit or (IGEA): A study by the QESP selected for a particular energy-savings performance contract project which includes detailed descriptions of the improvements recommended for the project, the costs of the improvements, and the utility and operations and maintenance cost savings projected to result from the recommended improvements.
 - (q) Municipality: A town, consolidated town and city, consolidated town and borough, city or borough, including a local board of education.
 - (r) Operation and Maintenance Cost Savings: A measurable decrease in operation and maintenance costs and future replacement expenditures that is a direct result of the implementation of one or more utility cost savings measures. Such savings shall be calculated in comparison with an established baseline of operation and maintenance costs.
 - (s) Perform (in any part of speech, however conjugated): All Acts and things of the Contractor and Contractor Parties necessary or appropriate to execute, fulfill or accomplish fully this Contract and the Final Exhibits according to their terms.
 - (t) Qualified Energy Service Provider (QESP): A corporation approved by the Department of Administrative Services with a record of successful energy performance contract projects experienced in the design, implementation and installation of energy efficiency and facility improvement measures, the technical capabilities to ensure such measures generate energy and operational cost savings, and the ability to secure the financing necessary to support energy savings guarantees.
 - (u) Records: All working papers and such other information and materials as may have been accumulated by the Contractor in performing the Contract, including but not limited to, documents, data, plans, books, computations, drawings, specifications, notes, reports, records, estimates, summaries and correspondence, kept or stored in any form.
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- (v) Services: The performance of labor or work, as specified in the applicable Final Exhibits.
- (w) Solicitation: The State request inviting proposals for Work resulting in this Contract. This Contract shall be governed by the statutes, regulations and procedures of the State of Connecticut, Department of Administrative Services.
- (x) Standardized Energy-Savings Performance Contract Process (ESPCP): Standard procedures for entering into an energy-savings performance contract and standard energy-savings performance contract documents established by the Department of Energy and Environmental Protection (DEEP).
- (y) State Agency: has the same meaning as provided in Conn. Gen. Stat. Sec. 1-79 and means any office, department, board, council, commission, institution, constituent unit of the state system of higher education, vocational-technical school or other agency in the executive, legislative or judicial branch of state government.
- (z) Termination: An end to the Contract or SOW, as applicable, prior to the end of their respective terms whether effected pursuant to a right which the Contract or SOW creates or for a breach.
 - (aa) Title: all ownership, title, licenses, rights and interest, including, but not limited to, perpetual use, of and to the Work or Goods, as applicable.
 - (bb) Utility Cost Savings: Any utility expenses eliminated or avoided on a long-term basis as a result of equipment installed or modified, or services performed by a qualified energy service provider; "utility cost savings" does not include merely shifting personnel costs or similar short-term cost savings.
 - (cc) Work: Equipment or Services or both to be Performed in accordance with the Final Exhibits.

2. Term of Contract; Contract Extension.

- (a) Subject to the remainder of this provision, and unless Terminated in accordance with any other provision of this Contract, the Contract shall have a term of four years from its effective date, which is the date that the Connecticut Attorney General's Office approves it, which Termination is only for purposes of contracting for any new or additional work. From and after this or any other Termination date, a Department shall not issue any new or additional requests (taking the form of a purchase order, or an RFP seeking proposals for a Feasibility Analysis or any other document) to the Contractor seeking work beyond that already set forth in any applicable Final Exhibit. If the Contractor nevertheless receives such a request from a Department, the Contractor shall decline to comply with the request, since this Contract will have Terminated for purposes of any new or additional work. The Contract, however, shall continue in full force and effect, but only for the duration of the term, and for and to the extent of the work set forth, in the applicable Final Exhibits.
- (b) The parties may extend this Contract, prior to Termination one or more times for a combined total period of extensions that do not exceed the complete length of the original term, and only in accordance with the Contract Amendments Section in this Contract.

3. Rejected Items; Abandonment.

- (a) The Contractor may deliver, cause to be delivered, or, in any other way, bring or cause to be brought, to any Department premises or other destination, Equipment, as samples or otherwise, and other supplies, materials, equipment or other tangible personal property. The Department may, by written notice and in accordance with the terms and conditions of the Contract, direct the Contractor to remove any or all such Equipment (the “Rejected Equipment”) and any or all other supplies, materials, equipment or other tangible personal property (collectively, the “Contractor Property”) from and out of Department premises and any other location which the Department manages, leases or controls. The Contractor shall remove the Rejected Equipment and the Contractor Property in accordance with the terms and conditions of the written notice. Failure to remove the Rejected Equipment or the Contractor Property in accordance with the terms and conditions of the written notice shall mean, for itself and all Contractor Parties that:
- (1) they have voluntarily, intentionally, unconditionally, unequivocally and absolutely abandoned and left unclaimed the Rejected Equipment and Contractor Property and relinquished all Title to the Rejected Equipment and Contractor Property with the specific and express intent of (A) terminating all of their Title to the Rejected Equipment and Contractor Property, (B) vesting Title to the Rejected Equipment and Contractor Property in the Department and (C) not ever reclaiming Title or any future rights of any type in and to the Rejected Equipment and Contractor Property;
 - (2) there is no ignorance, inadvertence or unawareness to mitigate against the intent to abandon the Rejected Equipment or Contractor Property;
 - (3) they vest authority, without any further act required on their part or the Department’s part, in the Department to use or dispose of the Rejected Equipment and Contractor Property, in the Department’s sole discretion, as if the Rejected Equipment and Contractor Property were the Department’s own property and in accordance with law, without incurring any liability or obligation to the Contractor or any other party;
 - (4) if the Department incurs any costs or expenses in connection with disposing of the Rejected Equipment and Contractor Property, including, but not limited to, advertising, moving or storing the Rejected Equipment and Contractor Property, auction and other activities, the Department shall invoice the Contractor for all such cost and expenses and the Contractor shall reimburse the Department no later than thirty (30) days after the date of invoice; and
 - (5) they do remise, release and forever discharge the Department and its employees, departments, commissions, boards, bureaus, agencies, instrumentalities or political subdivisions and their respective successors, heirs, executors and assigns (collectively, the “Department and Its Agents”) of and from all Claims which they and their respective successors or assigns, jointly or severally, ever had, now have or will have against the Department and Its Agents arising from the use or disposition of the Rejected Equipment and Contractor Property.
- (b) The Contractor shall secure from each Contractor Party, as appropriate, such document or instrument as necessary or appropriate as will vest in the Contractor plenary authority to bind the Contractor Parties to the full extent necessary or appropriate to give full effect to all of the terms and conditions of this Section. The Contractor shall provide, no later than fifteen (15) days after receiving a request from the Department, such information as the Department
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may require to evidence, in the Department's sole determination, compliance with this Section.

4. Compliance with ESPCP

The QESP shall comply with all applicable terms and conditions of the ESPCP. DEEP and DAS shall perform an annual review of the QESP and monitor its compliance with the ESPCP.

5. Cost-Effective Feasibility Analysis.

Department shall contact a number of QESPs forwarding to them a technical facility profile, which will detail information on the Department's buildings and energy and water use, and requesting each QESP to submit a letter of interest ("LOI") if the QESP is interested in receiving an RFP for a particular project. The Department shall provide to the QESPs a form of LOI, which indicates QESP's interest in submitting a Cost-Effective Feasibility Analysis ("Feasibility Analysis"). The requirements for the Feasibility Analysis are set forth in a certain request for proposals ("RFP"), attached as Exhibit B. Based upon the LOIs received, the Department will select at least three QESPs to receive the RFP and to have the opportunity for a brief walk-through of facilities on the potential Project Site(s). Not all QESPs will receive the RFP.

6. IGEA Process.

Pursuant to Public Act 11-80, the Feasibility Analysis, which the QESP will prepare as part of its proposal in response to the RFP, will serve as the selection document for purposes of selecting a QESP to conduct an IGEA and draft an IGEA Report. The QESP will conduct the IGEA and draft the IGEA Report and Project Development Proposal in accordance with Exhibit C.

7. Energy-Savings Performance Project Statement of Work.

The Department and QESP shall use the IGEA Report as the basis for negotiating the SOW, the form of which is attached as Exhibit A. Exhibit A shall become a Final Exhibit A once the parties negotiate, finalize, execute and date it.

8. Order and Delivery.

The Contract shall bind the Contractor to furnish and deliver the Work in accordance with all applicable Final Exhibits.

9. Contract Amendments. No amendment to or modification or other alteration of the Contract, including extensions, shall be valid or binding upon the parties unless made in writing, signed by the parties and, if applicable, approved by the Connecticut Attorney General.

10. Assignments.

- (a) The Contractor shall not assign any of its rights or obligations under the Contract, voluntarily or otherwise, in any manner without the prior written consent of DAS. DAS may void any purported assignment in violation of this Assignments Section and declare the

Contractor in Material Breach. Any Termination by DAS for a Material Breach is without prejudice to DAS's or the Department's rights or possible Claims.

- (b) The Final Exhibit A may include provisions concerning assignments and purported assignments applicable to the Final Exhibit A, in whole or in part, but if, and only if, those provisions are limited to supplementing this Assignments Section and do not modify or abrogate anything in this Assignments Section. Those assignment provisions in the Final Exhibit A shall be consistent with this Assignments Section; if they are not, then this Assignments Section shall govern.

11. Termination.

- (a) Notwithstanding any provisions in this Contract, DAS, through a duly authorized employee, may Terminate the Contract whenever DAS makes a written determination that such Termination is in the best interests of the State. DAS shall notify the Contractor in writing of Termination pursuant to this Section, which notice shall specify the effective date of Termination and the extent to which the Contractor must complete its Performance prior to such date.
- (b) Notwithstanding any provisions in this Contract, DAS, through a duly authorized employee, may Terminate the Contract for a Material Breach, but only after making a written determination that the Contractor is in Material Breach under the Material Breach Section of this Contract.
- (c) Notwithstanding any provisions in this Contract, DAS, through a duly authorized employee, may Terminate the Contract for a breach other than a Material Breach, but only after making a written determination that the Contractor is in breach of Contract and has failed to cure the breach in accordance with the Other Breaches Section of this Contract.
- (d) DAS shall send the notice of Termination via certified mail, return receipt requested, to the Contractor at the most current address which the Contractor has furnished to DAS for purposes of correspondence, or by hand delivery. Upon receiving the notice from DAS, the Contractor shall immediately discontinue all services affected in accordance with the notice, undertake all commercially reasonable efforts to mitigate any losses or damages, and deliver to the appropriate Department all Records. The Records are deemed to be the property of the Department and the Contractor shall deliver them to the Department no later than thirty (30) days after the Termination of the Contract or fifteen (15) days after the Contractor receives a written request from DAS for the Records. The Contractor shall deliver those Records that exist in electronic, magnetic or other intangible form in a non-proprietary format, such as, but not limited to, ASCII or .TXT.
- (e) Upon receipt of a written notice of Termination from DAS, the Contractor shall cease operations as DAS directs in the notice, and take all actions that are necessary or appropriate, or that DAS may reasonably direct, for the protection, and preservation of the Equipment and any other property. Except for any work which DAS directs the Contractor to Perform in the notice prior to the effective date of Termination, and except as otherwise provided in the notice, the Contractor shall terminate or conclude all existing subcontracts and purchase orders and shall not enter into any further subcontracts, purchase orders or commitments.
- (f) Department shall, within forty-five (45) days of the effective date of Termination, and if appropriate in accordance with Exhibit D, Cost and Pricing, reimburse the Contractor for its Performance to the extent rendered and accepted by the Department and that is appropriate in accordance with the applicable Final Exhibits. However, the Contractor is not entitled to
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receive and the Department is not obligated to tender to the Contractor any payments for anticipated or lost profits. Upon request by the Department, the Contractor shall assign to the Department, or any replacement contractor which the Department designates, all subcontracts, purchase orders and other commitments, deliver to the Department all Records and other information pertaining to its Performance, and remove from Department premises, whether leased or owned, all of Contractor's property, equipment, waste material and rubbish related to its Performance, all as the Department may request.

- (g) For breach or violation of any of the provisions in the Representations and Warranties Section, DAS may Terminate the Contract in accordance with its terms and revoke any consents to assignments given as if the assignments had never been requested or consented to, without liability to the Contractor or Contractor Parties or any third party.
 - (h) Upon Termination of the Contract, all rights and obligations shall be null and void, so that no party shall have any further rights or obligations to any other party, except with respect to the sections which survive Termination. All representations, warranties, agreements and rights of the parties under the Contract shall survive such Termination to the extent not otherwise limited in the Contract and without each one of them having to be specifically mentioned in the Contract.
 - (i) Termination of the Contract pursuant to this Section shall not be deemed to be a breach of contract by DAS.
12. **Events of Material Breach; Right to Cure.** The occurrence of any one or more of the following events shall constitute a material breach ("Material Breach") of this Contract; this section shall apply to Contractor Parties, such that if a Contractor Party commits a Material Breach then the Contractor shall be responsible in all respects for that Material Breach and its consequences under this Contract as if the Contractor itself had committed the Material Breach:
- (a) The failure of Contractor or Department to comply, respectively, with any material covenant or condition of this Contract, which failure is not cured within fifteen (15) days after receipt of notice of such failure from the non-failing party; provided that if such failure is one that cannot be cured within fifteen (15) days with the exercise of reasonable diligence, such failure shall not be deemed to be a Material Breach if the failing party is diligently proceeding to cure such failure; provided further that such extended cure period shall not exceed an additional thirty (30) days beyond the fifteen (15) days without the prior written consent of the non-failing party, which consent shall not be unreasonably withheld.
 - (b) The failure of Contractor to Perform materially, including, but not limited to, complying fully with all terms and conditions of the ESPCP and Performing in accordance with the applicable Final Exhibits, which failure is not cured within fifteen (15) days after receipt of notice of such failure from the Department; provided that if such failure is one that cannot be cured within fifteen (15) days with the exercise of reasonable diligence, such failure shall not be deemed to be a Material Breach if the Contractor is diligently proceeding to cure such failure; provided further that such extended cure period shall not exceed an additional thirty (30) days beyond the fifteen (15) days without the prior written consent of the Department, which consent shall not be unreasonably withheld.
 - (c) The appointment of any receiver for the Contractor, or the execution of any other process or any action by a court of competent jurisdiction against the Contractor which is not vacated,
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dismissed or set aside or for which the Contractor fails to take steps and diligently prosecute, toward the vacation, dismissal or set aside, within a period of thirty (30) days from such appointment or execution and which materially interferes with the Contractor's ability to Perform under this Contract.

- (d) A writ of attachment or execution is levied on any part of the Equipment, and is attributable to the Contractor, and is not vacated, dismissed or set aside, or for which the Contractor fails to take steps and diligently prosecute, toward the vacation, dismissal or set aside, within thirty (30) days from such levy.
 - (e) The filing of any vendor's, mechanic's, laborer's, materialman's or other similar lien or encumbrance (collectively, "Liens") based upon furnishing of Work, which the QESP does not discharge within one hundred twenty (120) calendar days after it receives notice of the Liens.
 - (f) Any representation or warranty of the Contractor or Department that is false or misleading (collectively, "Falsehood") in any material respect and which Falsehood is not cured within fifteen (15) days of receipt of notice of such Falsehood from the other party; provided that, if such Falsehood fails to be cured within fifteen (15) days with the exercise of reasonable diligence, such failure shall not be deemed to be a Material Breach if the party who made the representation or warranty is diligently proceeding to cure such Falsehood; provided further that such extended cure period shall not exceed an additional thirty (30) days beyond the fifteen (15) days without the prior written consent of the other party, which consent shall not be unreasonably withheld.
 - (g) The Contractor abandons Performance, or, in the reasonable judgment of the Department, fails to provide sufficient materials or qualified workers to adequately prosecute the work in accordance with the applicable Final Exhibits.
 - (h) Any proceeding is instituted against the Contractor seeking to adjudicate it as bankrupt or insolvent, and the Contractor is not appointed debtor in possession by the court.
 - (i) (1) the Contractor makes a general assignment for the benefit of creditors, (2) a receiver is appointed on account of the insolvency of the Contractor, or (3) the Contractor files a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up or composition or reorganization of debts and, in the case of any proceeding referred to in this subsection, such proceeding is not dismissed, or as to which the Contractor fails to take steps and diligently prosecute toward a dismissal, within sixty (60) days after such filing.
 - (j) There is a material adverse change in the financial condition or operations or the business of the Contractor that substantially affects its ability to Perform in accordance with this Contract.
 - (k) An assignment or purported assignment, in whole or in part, of the Contract or any Final Exhibit, including specifically Final Exhibit A, without the prior written approval of DAS or
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the Department, as appropriate.

- (l) Any other event or condition which Final Exhibit A identifies as a Material Breach.
13. **Other Breaches; Right to Cure; Exercise of Remedies.** This Section governs all breaches except Material Breaches. If either party breaches the Contract in any respect, the non-breaching party shall provide written notice of such breach to the breaching party and afford the breaching party an opportunity to cure the breach within ten (10) days from the date that the breaching party receives such notice. Any other time provided for in the notice shall trump such ten (10) days. Such right to cure period shall be extended if the non-breaching party is satisfied that the breaching party is making a good faith effort to cure but the nature of the breach is such that it cannot be cured within the right to cure period. If a breach remains uncured after the expiration of a right to cure period, including any allowed extensions, then the following remedies are available to the parties:
- (a) if the QESP breaches, then the Department may exercise and any all remedies at law or equity, including the filing of any Claim;
 - (b) if a Municipality breaches, then the QESP may exercise and any all remedies at law or equity, including the filing of any Claim, subject, however, to the Municipality's governmental immunity privilege, as applicable; and
 - (c) if a State Agency breaches, then the sole and exclusive remedy for the QESP shall be in accordance with Chapter 53 of the Connecticut General Statutes, such that the QESP shall not initiate legal proceedings in any State or federal court in addition to, or in lieu of, said Chapter 53 proceedings.
14. **Notice of Breach.** Any notice of breach under either the Material Breach or Other Breaches provisions may include an effective Contract Termination date if the breach is not cured by the stated date and, unless otherwise modified by the non-breaching party in writing prior to the Termination date, no further action shall be required of any party to effect the Termination as of the stated date. If the notice does not set forth an effective Contract Termination date, then the non-breaching party may Terminate the Contract by giving the breaching party no less than twenty four (24) hours' prior written notice.
15. **Withholding of Payment.** This Section shall not be interpreted to be a limitation on or adversely affect the rights of the Department in "Events of Material Breach; Right to Cure" or the "Other Breaches; Right to Cure; Exercise of Remedies" Sections of this Contract. If QESP is in Material Breach or Other Breach of this Contract, then, the Department may withhold payment in whole or in part that is due or will become due under any of the Final Exhibits pending resolution of the Material Breach or Other Breach issue. However, the Department may do so only provided, that, the Department notifies the Contractor in writing prior to the date that the payment would have been due and provided further that withholding payment does not create a default or breach under the documents comprising Schedule I of Exhibit A.
16. **Waivers.**
- (a) No waiver of any breach of the Contract shall be interpreted or deemed to be a waiver of any other or subsequent breach.
 - (b) A party's failure to insist on strict performance of any provision of the Contract shall only be deemed to be a waiver of rights and remedies concerning that specific instance of

Performance and shall not be deemed to be a waiver of any subsequent rights, remedies or breach.

17. **Remedies.** All remedies afforded in the Contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided in the Contract or at law or in equity.

18. **Purchase Orders.**

- (a) The Contract itself is not an authorization for the Contractor to begin Performance in any way. The Contractor may begin Performance only in accordance with the applicable Final Exhibits and only after it has received a duly issued purchase order against the Contract for Performance in accordance with the applicable Final Exhibits.
- (b) The Department shall issue a purchase order against the Contract, and only in accordance with an applicable Final Exhibit, directly to the Contractor and to no other party. The Contractor may not commence Performance unless the purchase order is issued directly to the Contractor and to no other party.
- (c) For a State Agency, purchase orders shall be in written or electronic form, bear the Contract number and comply with all other applicable State requirements, particularly the State Agency's requirements concerning procurement. Only those purchase orders issued in compliance with such requirements shall be deemed to be "duly issued."
- (d) A Contractor making delivery without a duly issued purchase order in accordance with this Section does so at the Contractor's own risk.
- (e) The Department may, in its sole discretion, deliver to the Contractor any or all duly issued purchase orders via electronic means only, such that the Department shall not have any additional obligation to deliver to the Contractor a "hard copy" of the purchase order or a copy bearing any hand-written signature or other "original" marking.

19. **Indemnification.**

- (a) The Contractor shall indemnify, defend and hold harmless the Department and its officers, representatives, agents, servants, employees, successors and assigns from and against any and all (1) Claims arising, directly or indirectly, in connection with the Contract and all applicable Final Exhibits , including the negligent Acts of the Contractor or Contractor Parties; and (2) liabilities, damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, arising, directly or indirectly, in connection with Claims, Acts or the Contract. The Contractor shall use counsel reasonably acceptable to the Department in carrying out its obligations under this Section. The Contractor's obligations under this Section to indemnify, defend and hold harmless against Claims includes Claims concerning confidentiality of any part of or all of the Contractor's bid, proposal or any Records, any intellectual property rights, other proprietary rights of any person or entity, copyrighted or uncopyrighted compositions, secret processes, patented or unpatented inventions, articles or appliances furnished or used in the Performance.
 - (b) The Contractor shall not be responsible for indemnifying or holding the Department harmless from any liability arising due to the negligence of the Department or any other person or entity acting under the direct control or supervision of the Department.
 - (c) The Contractor shall reimburse the Department for any and all damages to the real or personal property of the Department caused by the Acts of the Contractor or any Contractor Parties. The Department shall give the Contractor reasonable notice of any such Claims.
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- (d) The Contractor's duties under this Section shall remain fully in effect and binding in accordance with the terms and conditions of the Contract, without being lessened or compromised in any way, even where the Contractor is alleged or is found to have merely contributed in part to the Acts giving rise to the Claims and/or where the Department is alleged or is found to have contributed to the Acts giving rise to the Claims.
- (e) The Contractor shall carry and maintain at all times during the term of the Contract, and during the time that any provisions survive the term of the Contract, sufficient general liability insurance to satisfy its obligations under this Contract. The Contractor shall name the Department as an additional insured on the policy and shall provide a copy of the policy to the Department prior to the effective date of the Contract. The Contractor shall not begin Performance until the delivery of the policy to the Department. The Department shall be entitled to recover under the insurance policy even if a body of competent jurisdiction determines that the Department is contributorily negligent.
- (f) This Section shall survive the Termination of the Contract and shall not be limited by reason of any insurance coverage.
20. Forum and Choice of Law. The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the Department, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.
21. Contractor Guarantees. Contractor shall:
- (a) Perform fully under the Contract;
 - (b) Guarantee the Work against defective material or workmanship and to repair any damage or marring occasioned in transit or, at the Department's option, replace them;
 - (c) Furnish adequate protection from damage for all work and to repair damage of any kind, for which its workers are responsible, to the premises, Equipment, the Contractor's work or that of Contractor Parties;
 - (d) With respect to the provision of Services, pay for all permits, licenses and fees and give all required or appropriate notices; and
 - (e) Adhere to all Contractual provisions ensuring the confidentiality of Records that the Contractor has access to and are exempt from disclosure under the State's Freedom of Information Act or other applicable law.
22. Implied Warranties. The implied warranty of fitness for a particular purpose and the warranty of merchantability are not disclaimed, excluded or modified for any of the Equipment.
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23. Equipment, Standards and Appurtenances. Any Equipment delivered must be standard new Equipment, latest model, except as otherwise specifically stated in the SOW.

Remanufactured, refurbished or reconditioned equipment may be accepted but only to the extent allowed under the SOW. Where the SOW does not specifically list or describe any part or nominal appurtenances of equipment for the Equipment, it shall be understood that the Contractor shall deliver such parts and appurtenances as are usually provided with the manufacturer's stock model.

24. Delivery.

(a) Delivery shall be made as ordered and in accordance with the provisions of the applicable Final Exhibits. Unless otherwise specified in the provisions of Final Exhibit A, delivery shall be to a loading dock or receiving platform. The Contractor or Contractor's shipping designee shall be responsible for removal of Equipment from the carrier and placement on the Department loading dock or receiving platform. The receiving personnel of the Department are not required to assist in this process. The decision of DAS as to reasonable compliance with delivery terms shall be final and binding. The burden of proof of proper receipt of the order shall rest with the Contractor.

(b) In order for the time of delivery to be extended, the Department must first approve a request for extension from the time specified in the Contract, such extension applying only to the particular item or shipment.

(c) Equipment shall be securely and properly packed for shipment, according to accepted standard commercial practice, without extra charge for packing cases, baling or sacks. The containers shall remain the property of the Department unless otherwise stated in QESP's proposal.

(d) All risk of loss and damage to the Equipment transfers to the Department upon Title vesting in the Department.

25. Equipment Inspection. The Department shall determine the manner and prescribe the inspection of all Equipment and the tests of all samples submitted to determine whether they comply with all of the specifications in the Contract. If any Equipment fail in any way to meet the specifications in the Contract, the Department may, in its sole discretion, either reject it and owe nothing or accept it and pay for it on an adjusted price basis, depending on the degree to which the Equipment meets the specifications. Any decision pertaining to any such failure or rejection shall be final and binding.

26. Setoff. In addition to all other remedies that DAS and the Department may have, the Department, in its sole discretion, may setoff (1) any costs or expenses that the Department incurs resulting from the Contractor's unexcused non-Performance under the Contract and under any other agreement or arrangement that the Contractor has with the Department, or with the State if the Department is a State Agency and (2) any other amounts that are due or may become due from the Department to the Contractor, against amounts otherwise due or that may become due to the Contractor under the Contract, or under any other agreement or arrangement that the Contractor has with the Department, or with the State if the Department is a State Agency. The Department's right of setoff shall not be deemed to be the Department's exclusive remedy for the Contractor's or Contractor Parties' breach of the Contract, all of which shall survive any setoffs by the Department.

27. Force Majeure. The Department and the Contractor shall not be excused from their obligation to Perform in accordance with the Contract except in the case of Force Majeure

events and as otherwise provided for in the Contract. In the case of any such exception, the nonperforming party shall give immediate written notice to the other, explaining the cause and probable duration of any such nonperformance.

28. Advertising. The Contractor shall not refer to any State Agency for advertising or promotional purposes, including, but not limited to, posting any material or data on the Internet, without DAS's prior written approval.
29. Americans With Disabilities Act. The Contractor shall be and remain in compliance with the Americans with Disabilities Act of 1990 ("ADA Act"), to the extent applicable, during the term of the Contract. DAS may Terminate the Contract if the Contractor fails to comply with the ADA Act.
30. Representations and Warranties. The Final Exhibit A may include additional representations and warranties that are in addition to, and do not modify or abrogate, the ones in this Representation and Warranties Section. The Contractor represents and warrants to DAS for itself and Contractor Parties, as appropriate, that:
 - (a) if they are entities, they are duly and validly existing under the laws of their respective states of organization and authorized to conduct business in the State of Connecticut in the manner contemplated by the Contract. Further, as appropriate, they have taken all necessary action to authorize the execution, delivery and Performance and the Contract and have the power and authority to execute, deliver and Perform their obligations under the Contract;
 - (b) they will comply with all applicable State and Federal laws and municipal ordinances in satisfying their obligations to the Department under and pursuant to the Contract, including, but not limited to (1) Connecticut General Statutes Title 1, Chapter 10, concerning the State's Codes of Ethics and (2) Title 4a concerning State purchasing, including, but not limited to 22a-194a concerning the use of polystyrene foam;
 - (c) the execution, delivery and Performance of the Contract will not violate, be in conflict with, result in a breach of or constitute (with or without due notice and/or lapse of time) a default under any of the following, as applicable: (1) any provision of law; (2) any order of any court or the State; or (3) any indenture, agreement, document or other instrument to which it is a party or by which it may be bound;
 - (d) they are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from entering into a contract with any governmental entity;
 - (e) as applicable, they have not, within the three years preceding the Contract, in any of their current or former jobs, been convicted of, or had a civil judgment rendered against them or against any person who would Perform under the Contract, for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a transaction or contract with any governmental entity. This includes, but is not limited to, violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (f) they are not presently indicted for or otherwise criminally or civilly charged by any governmental entity with commission of any of the offenses listed above;
 - (g) they have not within the three years preceding the Contract had one or more contracts with any governmental entity terminated;

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- (h) they have not employed or retained any entity or person, other than a bona fide employee working solely for them, to solicit or secure the Contract and that they have not paid or agreed to pay any entity or person, other than a bona fide employee working solely for them, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of the Contract or any assignments made in accordance with the terms of the Contract;
 - (i) to the best of their knowledge, there are no Claims involving the Contractor or Contractor Parties that might reasonably be expected to materially adversely affect their businesses, operations, assets, properties, financial stability, business prospects or ability to Perform fully under the Contract and any projects under the ESPCP;
 - (j) they shall disclose, to the best of their knowledge, to DAS and the Department in writing any Claims involving them that might reasonably be expected to materially adversely affect their businesses, operations, assets, properties, financial stability, business prospects or ability to Perform fully under the Contract and any projects under the ESPCP, no later than ten (10) Days after becoming aware or after they should have become aware of any such Claims. For purposes of the Contractor's obligation to disclose any Claims, the ten (10) Days in the Disclosure of Contractor Parties Litigation Section of this Contract shall run consecutively with the ten (10) Days provided for in this representation and warranty;
 - (k) their participation in the Solicitation process is not a conflict of interest or a breach of ethics under the provisions of Title 1, Chapter 10 of the Connecticut General Statutes concerning the State's Code of Ethics;
 - (l) the proposal in response to the Solicitation was not made in connection or concert with any other person, entity or proposer, including any affiliate (as the term "Affiliate" is defined in the Tangible Personal Property Section of this Contract) of the QESP, submitting a proposal for the same Work, and is in all respects fair and without collusion or fraud;
 - (m) they are able to Perform under the Contract using their own resources;
 - (n) the Contractor shall obtain in a written contract all of the representations and warranties in this Section from any Contractor Parties and to require that provision to be included in any contracts and purchase orders with Contractor Parties;
 - (o) they have paid all applicable workers' compensation second injury fund assessments concerning all previous work done in Connecticut;
 - (p) they have a record of compliance with Occupational Health and Safety Administration regulations without any unabated, willful or serious violations;
 - (q) they owe no unemployment compensation contributions;
 - (r) they are not delinquent in the payment of any taxes owed, or, that they have filed a sales tax security bond, and they have, if and as applicable, filed for motor carrier road tax stickers and have paid all outstanding road taxes;
 - (s) all of their vehicles have current registrations and, unless such vehicles are permanently removed from service, they shall not allow any such registrations to lapse;
 - (t) each Contractor Party has vested in the Contractor plenary authority to bind the Contractor Parties to the full extent necessary or appropriate to ensure full compliance with and Performance in accordance with all of the terms and conditions of the Contract and that all
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appropriate parties shall also provide to DAS, no later than fifteen (15) days after receiving a request from DAS, such information as DAS may require to evidence, in DAS's sole determination, compliance with this Section;

- (u) except to the extent set forth in Final Exhibit A, all Title shall pass to the Department upon complete installation, testing and acceptance of the Work and payment by the Department;
- (v) if either party Terminates the Contract, for any reason, they shall relinquish to the Department all Title to the Equipment delivered, accepted and paid for (except to the extent any invoiced amount is disputed) by the Department;
- (w) with regard to third party products provided with the Equipment, they shall transfer all licenses which they are permitted to transfer in accordance with the applicable third party license;
- (x) they shall not copyright, register, distribute or claim any rights in or to the Equipment after the effective date of the Contract without Department's prior written consent;
- (y) they either own or have the authority to use all Title of and to the Equipment, and that such Title is not the subject of any encumbrances, liens or claims of ownership by any third party;
- (z) the Equipment does not infringe or misappropriate any patent, trade secret or other intellectual property right of a third party;
 - (aa) the Department's use of any Equipment shall not infringe or misappropriate any patent, trade secret or other intellectual property right of a third party;
 - (bb) if they procure any Equipment, they shall sub-license such Equipment and that the Department shall be afforded the full benefits of any manufacturer or subcontractor licenses for the use of the Equipment;
 - (cc) they shall assign or otherwise transfer to the Department, or afford the Department the full benefits of any manufacturer's warranty for the Equipment, to the extent that such warranties are assignable or otherwise transferable to the Department; and
- (dd) at all times during the term of the Contract and throughout QESPS's subsequent involvement in the ESPCP, including especially the term of the SOW, QESP shall always maintain employed staff who is licensed by the State of Connecticut as Professional Engineers in mechanical and electrical engineering.

31. Representations and Warranties Concerning Motor Vehicles. If in the course of Performance or in any other way related to the Contract the Contractor at any time uses or operates "motor vehicles," as that term is defined by Conn. Gen. Stat. §14-1(53) (including, but not limited to such services as snow plowing, sanding, hauling or delivery of materials, freight or merchandise, or the transportation of passengers), the Contractor, represents and warrants for itself and the Contractor Parties, as appropriate, that:

- (a) It is the owner of record or lessee of record of each such motor vehicle used in the Performance of the Contract, and each such motor vehicle is duly registered with the Connecticut Department of Motor Vehicles ("ConnDMV") in accordance with the provisions of Chapter 246 of the Connecticut General Statutes. Each such registration shall be in valid status, and shall not be expired, suspended or revoked by ConnDMV, for any reason or cause. If such motor vehicle is not registered with ConnDMV, then it shall be duly registered with another state or commonwealth in accordance with such other state's or

commonwealth's applicable statutes. Each such registration shall be in valid status, and shall not be expired, suspended or revoked by such other state or commonwealth for any reason or cause.

- (b) Each such motor vehicle shall be fully insured in accordance with the provisions of Sections 14-12b, 14-112 and 38a-371 of the Connecticut General Statutes, as amended, in the amounts required by the said sections or in such higher amounts as have been specified by ConnDMV as a condition for the award of the Contract, or in accordance with all substantially similar provisions imposed by the law of the jurisdiction where the motor vehicle is registered.
- (c) Each Contractor Party who uses or operates a motor vehicle at any time in the Performance of the Contract shall have and maintain a motor vehicle operator's license or commercial driver's license of the appropriate class for the motor vehicle being used or operated. Each such license shall bear the endorsement or endorsements required by the provisions of Section 14-36a of the Connecticut General Statutes, as amended, to operate such motor vehicle, or required by substantially similar provisions imposed by the law of another jurisdiction in which the operator is licensed to operate such motor vehicle. The license shall be in valid status, and shall not be expired, suspended or revoked by ConnDMV or such other jurisdiction for any reason or cause.
- (d) Each motor vehicle shall be in full compliance with all of the terms and conditions of all provisions of the Connecticut General Statutes and regulations, or those of the jurisdiction where the motor vehicle is registered, pertaining to the mechanical condition, equipment, marking and operation of motor vehicles of such type, class and weight, including, but not limited to, requirements for motor vehicles having a gross vehicle weight rating of 18,000 pounds or more or motor vehicles otherwise described by the provisions of Conn. Gen. Stat. § 14-163c(a) and all applicable provisions of the Federal Motor Carrier Safety Regulations, as set forth in Title 49, Parts 382 to 399, inclusive, of the Code of Federal Regulations.
32. **Disclosure of Contractor Parties Litigation.** The Contractor shall require that all Contractor Parties, as appropriate, disclose to the Contractor, to the best of their knowledge, any Claims involving the Contractor Parties that might reasonably be expected to materially adversely affect their businesses, operations, assets, properties, financial stability, business prospects or ability to Perform fully under the Contract, no later than ten (10) Days after becoming aware or after they should have become aware of any such Claims. Disclosure shall be in writing.
33. **Entirety of Contract.** The Contract is the entire agreement between the parties with respect to its subject matter, and supersedes all prior agreements, proposals, offers, counteroffers and understandings of the parties, whether written or oral. The Contract has been entered into after full investigation, neither party relying upon any statement or representation by the other unless such statement or representation is specifically embodied in the Contract.
34. **Exhibits.** **All exhibits referred to in and attached to this Contract are incorporated into this Contract by such reference. Some of these exhibits attached to this Contract are blank forms or templates. In addition, the Final Exhibits are also deemed to be a part of this Contract as of the effective dates indicated in the Final Exhibits. Since DAS and the Contractor are the sole signatories to this Contract, only they, and not a Department, shall be a party to an Amendment to this Contract. Accordingly, since Department and Contractor will negotiate and complete the Final Exhibits sometime after the effective date of this Contract, notwithstanding this or any other provision in this Contract or the Final Exhibits, the content of the Final Exhibits shall be restricted to memorializing only that specific Performance which is necessary or appropriate in order to carry out the particular Work that Department and Contractor include in the Final Exhibits. Final Exhibits, which may include attachments as the parties deem to**
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be necessary or appropriate, shall not include any term that Amends any part of this Contract. Other than complying with the procedures set forth in the Contract Amendments Section of this Contract, any intentional Acts to Amend this Contract, or any unintentional Acts which may be interpreted as an Amendment (like engaging for any period in a course of conduct that differs from that which this Contract provides), shall be void ab initio.

35. **Executive Orders.** This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. The Contract may also be subject to Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms and Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services, in accordance with their respective terms and conditions. If Executive Orders 7C and 14 are applicable, they are deemed to be incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, the Department or DAS shall provide a copy of these orders to the Contractor.
36. **Non-discrimination.** References in this section to "contract" shall mean this Contract and references to "contractor" shall mean the Contractor.
 - (a) For purposes of this Section, the following terms are defined as follows:
 - (1) "Commission" means the Commission on Human Rights and Opportunities;
 - (2) "Contract" and "contract" include any extension or modification of the Contract or contract;
 - (3) "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
 - (4) "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose.
 - (5) "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
 - (6) "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or

substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements;

(7) "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;

(8) "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;

(9) "minority business enterprise" means any small contractor or supplier of materials fifty-one percent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of Connecticut General Statutes § 32-9n; and

(10) "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, (2) a quasi-public agency, as defined in Conn. Gen. Stat. Section 1-120, (3) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in Conn. Gen. Stat. Section 1-267, (4) the federal government, (5) a foreign government, or (6) an agency of a subdivision, agency, state or government described in the immediately preceding enumerated items (1), (2), (3), (4) or (5).

(b)

(1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved;

(2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission;

(3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) the Contractor agrees to comply with each provision of this Section and Connecticut General Statutes §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes §§ 46a-56, 46a-68e and 46a-68f; and

(5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this Section and Connecticut General Statutes § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

(c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.

(e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes §46a-56; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

(f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.

(g)

(1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes § 46a-56; and

(4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and Connecticut General Statutes § 46a-56.

(h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes § 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

37. Tangible Personal Property.

(a) The Contractor on its behalf and on behalf of its Affiliates, as defined below, shall comply with the provisions of Conn. Gen. Stat. §12-411b, as follows:

(1) For the term of the Contract and any projects as set forth in Final Exhibit A, the Contractor and its Affiliates shall collect and remit to the State of Connecticut, Department of Revenue Services, any Connecticut use tax due under the provisions of Chapter 219 of the Connecticut General Statutes for items of tangible personal property sold by the Contractor or by any of its

Affiliates in the same manner as if the Contractor and such Affiliates were engaged in the business of selling tangible personal property for use in Connecticut and had sufficient nexus under the provisions of Chapter 219 to be required to collect Connecticut use tax;

- (2) A customer's payment of a use tax to the Contractor or its Affiliates relieves the customer of liability for the use tax;
 - (3) The Contractor and its Affiliates shall remit all use taxes they collect from customers on or before the due date specified in the Contract, which may not be later than the last day of the month next succeeding the end of a calendar quarter or other tax collection period during which the tax was collected;
 - (4) The Contractor and its Affiliates are not liable for use tax billed by them but not paid to them by a customer; and
 - (5) Any Contractor or Affiliate who fails to remit use taxes collected on behalf of its customers by the due date specified in the Contract shall be subject to the interest and penalties provided for persons required to collect sales tax under chapter 219 of the general statutes.
- (b) For purposes of this Section of the Contract, the word "Affiliate" means any person, as defined in section 12-1 of the general statutes, that controls, is controlled by, or is under common control with another person. A person controls another person if the person owns, directly or indirectly, more than ten per cent of the voting securities of the other person. The word "voting security" means a security that confers upon the holder the right to vote for the election of members of the board of directors or similar governing body of the business, or that is convertible into, or entitles the holder to receive, upon its exercise, a security that confers such a right to vote. "Voting security" includes a general partnership interest.
- (c) The Contractor represents and warrants that each of its Affiliates has vested in the Contractor plenary authority to so bind the Affiliates in any agreement with the State of Connecticut. The Contractor on its own behalf and on behalf of its Affiliates shall also provide, no later than 30 days after receiving a request by the State's contracting authority, such information as the State may require to ensure, in the State's sole determination, compliance with the provisions of Chapter 219 of the Connecticut General Statutes, including, but not limited to, §12-411b.
38. Whistleblowing. This Contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of information to any employee of the contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of this Contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the Contractor.

39. **Notice.** All notices, demands, requests, consents, approvals or other communications required or permitted to be given or which are given with respect to this Contract (for the purpose of this Section collectively called "Notices") shall be deemed to have been effected at such time as the notice is placed in the U.S. mail, first class and postage pre-paid, return receipt requested or placed with a recognized, overnight express delivery service that provides for a return receipt. All such Notices shall be in writing and shall be addressed as follows:

If to DAS:

State of Connecticut, Department of Administrative Services
165 Capitol Ave, 5th Floor South
Hartford, CT 06106-1659
Attention: Paul Greco

If to the Contractor:

COMPANY NAME: _____

NAME: _____

ADDRESS Line 1: _____

ADDRESS Line 2: _____

City: _____ State: _____ Zip: _____

Attention: Company: _____

Signatory Name: _____ Title: _____

State of Connecticut Department of Administrative Services
165 Capitol Ave, 5th Floor South
Hartford, CT 06106-1659
Attention: Paul Greco

40. **Insurance.** Before commencing Performance, the Contractor shall obtain and maintain at its own cost and expense for the duration of the Contract and any projects under the ESPCP, the following insurance as described in (a) through (h) below. Contractor shall assume any and all deductibles in the described insurance policies. The Contractor's insurers shall have no right of recovery or subrogation against the State of Connecticut or a Department and the described Contractor's insurance shall be primary coverage. Any failure to comply with the claim reporting provisions of the policy shall not affect coverage provided to the Department.

- (a) Commercial General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. Coverage shall include, Premises and Operations, Independent Contractors, Products and Completed Operations, Contractual Liability and Broad Form Property Damage coverage. If a general aggregate is used, the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the occurrence limit.
 - (b) Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury. Coverage extends to owned, hired and non-owned automobiles. If the vendor/contractor
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does not own an automobile, but one is used in the execution of the contract, then only hired and non-owned coverage is required. If a vehicle is not used in the execution of the contract then automobile coverage is not required.

- (c) **Workers' Compensation and Employers Liability:** Statutory coverage in compliance with the Compensation laws of the State of Connecticut. Coverage shall include Employer's Liability with minimum limits of \$100,000 each accident, \$500,000 Disease – Policy limit, \$100,000 each employee.
- (d) **Umbrella Liability:** Excess/umbrella liability insurance may be included to meet minimum requirements. Umbrella coverage must indicate the existing underlying insurance coverage.
- (e) **Claims Made:** Not acceptable with the exception of Professional Liability when specified.

41. **Headings.** The headings given to the sections in the Contract are inserted only for convenience and are in no way to be construed as part of the Contract or as a limitation of the scope of the particular section to which the heading refers.

42. **Number and Gender.** Whenever the context so requires, the plural or singular shall include each other and the use of any gender shall include all genders.

43. **Parties.** To the extent that any Contractor Party is to participate or Perform in any way any projects under the ESPCP, any reference in the Solicitation, the Contract or any other document under the ESPCP to "Contractor" shall also be deemed to include "Contractor Parties" as if such reference had originally specifically included "Contractor Parties" since it is the parties' intent for the term "Contractor Parties" to be vested with the same respective rights and obligations as the term "Contractor."

44. **Contractor Changes.** The Contractor shall notify DAS and the Department in writing no later than ten (10) Days from the effective date of any change in:

- a) its certificate of incorporation or other organizational document;
- b) more than a controlling interest in the ownership of the Contractor; or
- c) the individual(s) in charge of the Performance (only the Department, not DAS).

This change shall not relieve the Contractor of any responsibility for the accuracy and completeness of the Performance. DAS or the Department, after receiving written notice by the Contractor of any such change, may require such agreements, releases and other instruments evidencing, to their satisfaction, that any individuals retiring or otherwise separating from the Contractor have been compensated in full or that provision has been made for compensation in full, for all work performed under terms of the Contract. The Contractor shall deliver such documents to DAS or the Department in accordance with the terms of DAS's or the Department's written request. DAS or the Department may also require, and the Contractor shall deliver, a financial statement showing that solvency of the Contractor is being maintained. The death of any Contractor Party, as applicable, shall not release the Contractor from the obligation to Perform under the Contract; the surviving Contractor Parties, as appropriate, must continue to Perform under the Contract until Performance is fully completed.

45. **Further Assurances.** The parties shall provide such information, execute and deliver any instruments and documents and take such other actions as may be necessary or reasonably requested by the other party which are not inconsistent with the provisions of this Contract

and which do not involve the vesting of rights or assumption of obligations other than those provided for in the Contract, in order to give full effect to the Contract and to carry out the intent of the Contract.

46. Audit and Inspection of Plants, Places of Business and Records.

- (a) The Department and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's and Contractor Parties' plants and places of business which, in any way, are related to, or involved in, the performance of this Contract.
- (b) The Contractor shall maintain, and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the Department and its agents.
- (c) The Department shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the Department suspects fraud or other abuse, or in the event of an emergency, the Department is not obligated to provide any prior notice.
- (d) All audits and inspections shall be at the Contractor's expense.
- (e) The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Contract, or (ii) the earlier termination of this Contract, as the same may be modified for any reason. The Department may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.
- (f) The Contractor shall cooperate fully with the Department and its agents in connection with an audit or inspection. Following any audit or inspection, the Department may conduct and the Contractor shall cooperate with an exit conference.
- (g) The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

47. Background Checks. The State may require that the Contractor and Contractor Parties undergo criminal background checks as provided for in the State of Connecticut Department of Emergency Services and Public Protection Administration and Operations Manual or such other State document as governs procedures for background checks. The Contractor and Contractor Parties shall cooperate fully as necessary or reasonably requested with the Department and its agents in connection with such background checks.

48. Continued Performance. The Contractor and Contractor Parties shall continue to Perform their obligations under the Contract while any dispute concerning the Contract is being resolved.

49. Working and Labor Synergies. The Contractor shall be responsible for maintaining a tranquil working relationship between and among the Contractor work force, the Contractor Parties and their work force, Department employees, and any other parties present at the work site. The Contractor shall quickly resolve all labor disputes which result from the Contractor's or Contractor Parties' presence at the work site, or other action under their

control. Labor disputes shall not be deemed to be sufficient cause to allow the Contractor to make any claim for additional compensation for cost, expenses or any other loss or damage, nor shall those disputes be deemed to be sufficient reason to relieve the Contractor from any of its obligations under the Contract.

50. Contractor Responsibility.

- (a) The Contractor shall be responsible for the entire Performance under the Contract regardless of whether the Contractor itself performs. The Contractor shall be the sole point of contact concerning the management of the Contract, including Performance and payment issues. The Contractor is solely and completely responsible for adherence by the Contractor Parties to all applicable provisions of the Contract. Notwithstanding any provisions in the Contract, the Final Exhibits or any subcontract, nothing shall be interpreted as establishing privity of contract between the Department and any subcontractor.
- (b) The Contractor shall exercise all reasonable care to avoid damage to the Department's property or to property being made ready for the Department's use, and to all property adjacent to any work site. The Contractor shall promptly report any damage, regardless of cause, to the Department.

51. Severability. If any term or provision of the Contract or its application to any person, entity or circumstance shall, to any extent, be held to be invalid or unenforceable, the remainder of the Contract or the application of such term or provision shall not be affected as to persons, entities or circumstances other than those as to whom or to which it is held to be invalid or unenforceable. Each remaining term and provision of the Contract shall be valid and enforced to the fullest extent possible by law.

52. Confidentiality of Contractor Information. The Department will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the Department receives. However, all materials associated with any Contractor submittal to a Department or the Contract are subject to the terms of the Connecticut Freedom of Information Act ("FOIA") and all corresponding rules, regulations and interpretations. In making such a request for protection, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract, especially including the Final Exhibits, and the Records, conflicts or is in any way inconsistent with this Section, this Section controls and shall apply and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking said documentation as CONFIDENTIAL, the Department will endeavor to keep said information confidential to the extent permitted by law. The Department, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. The Contractor shall have the burden of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall a Department have any liability for the disclosure of any documents or information in its possession which the Department believes are required to be disclosed pursuant to the FOIA or other requirements of law.

53. **Interpretation.** The Contract contains numerous references to statutes and regulations. For all purposes, the content of those statutes and regulations shall govern over the content of the reference in the Contract to those statutes and regulations.

54. **Cross-Default.**

- (a) If the Contractor or Contractor Parties breach, default or in any way fail to Perform satisfactorily under the Contract, then DAS may, in its sole discretion, without more and without any action whatsoever required of a Department, treat any such event as a breach, default or failure to Perform under any or all other agreements or arrangements (“Other Agreements”) that the Contractor and Contractor Parties may have with the State of Connecticut. Accordingly, DAS may then exercise at its sole option any and all of its rights or remedies provided for in the Contract or Other Agreements, either selectively or collectively and without such election being deemed to prejudice any rights or remedies of Department, as if the Contractor or Contractor Parties had suffered a breach, default or failure to Perform under the Other Agreements.
- (b) If the Contractor or Contractor Parties breach, default or in any way fail to Perform satisfactorily under any or all Other Agreements, then DAS may, in its sole discretion, without more and without any other action whatsoever being required, treat any such event as a breach, default or failure to Perform under the Contract. Accordingly, DAS may then exercise at its sole option any and all of rights or remedies provided for in the Other Agreements or the Contract, either selectively or collectively and without such election being deemed to prejudice any rights or remedies of a Department or the State, as if the Contractor or Contractor Parties had suffered a breach, default or failure to Perform under the Contract.

55. **Disclosure of Records.** This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to FOIA and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General Statutes.

56. **Summary of State Ethics Laws.** Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes, the summary of State ethics laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes is incorporated by reference into and made a part of the Contract as if the summary had been fully set forth in the Contract.

57. **Sovereign Immunity.** The parties acknowledge and agree that nothing in the Solicitation or the Contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the Department or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of the Contract. To the extent that this Section conflicts with any other Section, this Section shall govern.

58. **Time of the Essence.** Time is of the essence with respect to all provisions of this Contract that specify a time for Performance; provided, however, that this provision shall not be

construed to limit or deprive a party of the benefits of any grace or use period allowed in this Contract.

59. Prevailing Wages. Some or all of the Performance in the Final Exhibit A may be subject to prevailing wages. Accordingly, the following provision is included in this Contract in accordance with the requirements of Conn. Gen. Stat. Sec. 31-53(a):

The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of this section, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day

Without modifying the foregoing, or affecting QESP's obligation to pay prevailing wages, if QESP is unable to secure the prevailing wage rates from the Connecticut Department of Labor, then the Department shall do and perform all that is necessary to do the same and forward the rates to the QESP.

60. Campaign Contribution Restriction. For all "State contracts," defined in Conn. Gen. Stat. §9-612(g)(1) as having a value in a calendar year of \$50,000 or more or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this Contract expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice, as set forth in "Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations," attached as Exhibit E."

61. Health Care Portability and Accountability Act.

- (a) If the Contractor or Contractor Parties is a Business Associate under the requirements of the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the Contractor or Contractor Parties must comply with all terms and conditions of this Section of the Contract. If the Contractor or Contractor Parties is not a Business Associate under HIPAA, this Section of the Contract does not apply to the Contractor or Contractor Parties for this Contract.
- (b) The Contractor or Contractor Parties is required to safeguard the use, publication and disclosure of information on all applicants for, and all clients who receive, services under the Contract in accordance with all applicable federal and state law regarding confidentiality, which includes but is not limited to HIPAA, more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E; and
- (c) The Department is a "covered entity" as that term is defined in 45 C.F.R. § 160.103; and
- (d) The Contractor or Contractor Parties, on behalf of the Department, performs functions that involve the use or disclosure of "individually identifiable health information," as that term is defined in 45 C.F.R. § 160.103; and

- (e) The Contractor or Contractor Parties is a “business associate” of the Department, as that term is defined in 45 C.F.R. § 160.103; and
 - (f) The Contractor or Contractor Parties and the Department agree to the following in order to secure compliance with the HIPAA, the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act (the HITECH Act), (Pub. L. 111-5, sections 13400 to 13423), and more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E.
 - (g) Definitions. For the purposes of this Section of the Contract:
 - (1) “Breach” shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(1)).’
 - (2) “Business Associate” shall mean the or Contractor or Contractor Parties.
 - (3) “Covered Entity” shall mean the Department.
 - (4) “Designated Record Set” shall have the same meaning as the term “designated record set” in 45 C.F.R. § 164.501.
 - (5) “Electronic Health Record” shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(5)).
 - (6) “Individual” shall have the same meaning as the term “individual” in 45 C.F.R. § 160.103 and shall include a person who qualifies as a personal representative as defined in 45 C.F.R. § 164.502(g).
 - (7) “Privacy Rule” shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and part 164, subparts A and E.
 - (8) “Protected Health Information” or “PHI” shall have the same meaning as the term “protected health information” in 45 C.F.R. § 160.103, limited to information created or received by the Business Associate from or on behalf of the Covered Entity.
 - (9) “Required by Law” shall have the same meaning as the term “required by law” in 45 C.F.R. § 164.103.
 - (10) “Secretary” shall mean the Secretary of the Department of Health and Human Services or his designee.
 - (11) “More stringent” shall have the same meaning as the term “more stringent” in 45 C.F.R. § 160.202.
 - (12) “This Section of the Contract” refers to the HIPAA Provisions stated herein, in their entirety.
 - (13) “Security Incident” shall have the same meaning as the term “security incident” in 45 C.F.R. § 164.304.
 - (14) “Security Rule” shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. part 160 and part 164, subpart A and C.
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(15) “Unsecured protected health information” shall have the same meaning as the term as defined in § 13402(h)(1)(A) of HITECH Act. (42 U.S.C. §17932(h)(1)(A).

(h) Obligations and Activities of Business Associates.

- (1) Business Associate agrees not to use or disclose PHI other than as permitted or required by this Section of the Contract or as Required by Law.
 - (2) Business Associate agrees to use appropriate safeguards to prevent use or disclosure of PHI other than as provided for in this Section of the Contract.
 - (3) Business Associate agrees to use administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of electronic protected health information that it creates, receives, maintains, or transmits on behalf of the Covered Entity.
 - (4) Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate of a use or disclosure of PHI by Business Associate in violation of this Section of the Contract.
 - (5) Business Associate agrees to report to Covered Entity any use or disclosure of PHI not provided for by this Section of the Contract or any security incident of which it becomes aware.
 - (6) Business Associate agrees to insure that any agent, including a subcontractor, to whom it provides PHI received from, or created or received by Business Associate, on behalf of the Covered Entity, agrees to the same restrictions and conditions that apply through this Section of the Contract to Business Associate with respect to such information.
 - (7) Business Associate agrees to provide access, at the request of the Covered Entity, and in the time and manner agreed to by the parties, to PHI in a Designated Record Set, to Covered Entity or, as directed by Covered Entity, to an Individual in order to meet the requirements under 45 C.F.R. § 164.524.
 - (8) Business Associate agrees to make any amendments to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 C.F.R. § 164.526 at the request of the Covered Entity, and in the time and manner agreed to by the parties.
 - (9) Business Associate agrees to make internal practices, books, and records, including policies and procedures and PHI, relating to the use and disclosure of PHI received from, or created or received by, Business Associate on behalf of Covered Entity, available to Covered Entity or to the Secretary in a time and manner agreed to by the parties or designated by the Secretary, for purposes of the Secretary determining Covered Entity’s compliance with the Privacy Rule.
 - (10) Business Associate agrees to document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
 - (11) Business Associate agrees to provide to Covered Entity, in a time and manner agreed to by the parties, information collected in accordance with clause h. (10) of this Section
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of the Contract, to permit Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder. Business Associate agrees that at the Covered Entity's direction to provide an accounting of disclosures of PHI directly to an individual in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.

- (12) Business Associate agrees to comply with any state or federal law that is more stringent than the Privacy Rule.
- (13) Business Associate agrees to comply with the requirements of the HITECH Act relating to privacy and security that are applicable to the Covered Entity and with the requirements of 45 C.F.R. sections 164.504(e), 164.308, 164.310, 164.312, and 164.316.
- (14) In the event that an individual requests that the Business Associate (a) restrict disclosures of PHI; (b) provide an accounting of disclosures of the individual's PHI; or (c) provide a copy of the individual's PHI in an electronic health record, the Business Associate agrees to notify the covered entity, in writing, within two business days of the request.
- (15) Business Associate agrees that it shall not directly or indirectly receive any remuneration in exchange for PHI of an individual without (1) the written approval of the covered entity, unless receipt of remuneration in exchange for PHI is expressly authorized by this Contract and (2) the valid authorization of the individual, except for the purposes provided under section 13405(d)(2) of the HITECH Act,(42 U.S.C. § 17935(d)(2)) and in any accompanying regulations
- (16) Obligations in the Event of a Breach
 - (A) The Business Associate agrees that, following the discovery of a breach of unsecured protected health information, it shall notify the Covered Entity of such breach in accordance with the requirements of section 13402 of HITECH (42 U.S.C. § 17932(b) and the provisions of this section of the contract.
 - (B) Such notification shall be provided by the Business Associate to the Covered Entity without unreasonable delay, and in no case later than 30 days after the breach is discovered by the Business Associate, except as otherwise instructed in writing by a law enforcement official pursuant to section 13402 (g) of HITECH (42 U.S.C. § 17932(g)). A breach is considered discovered as of the first day on which it is, or reasonably should have been, known to the Business Associate. The notification shall include the identification and last known address, phone number and email address of each individual (or the next of kin of the individual if the individual is deceased) whose unsecured protected health information has been, or is reasonably believed by the Business Associate to have been, accessed, acquired, or disclosed during such breach.
 - (C) The Business Associate agrees to include in the notification to the Covered Entity at least the following information:
 1. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.

2. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code).
3. The steps the Business Associate recommends that individuals take to protect themselves from potential harm resulting from the breach.
4. A detailed description of what the Business Associate is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
5. Whether a law enforcement official has advised either verbally or in writing the Business Associate that he or she has determined that notification or notice to individuals or the posting required under section 13402 of the HITECH Act would impede a criminal investigation or cause damage to national security and contact information for said official.

- (D) Business Associate agrees to provide appropriate staffing and have established procedures to ensure that individuals informed by the Covered Entity of a breach by the Business Associate have the opportunity to ask questions and contact the Business Associate for additional information regarding the breach. Such procedures shall include a toll-free telephone number, an e-mail address, a posting on its Web site and a postal address. Business Associate agrees to include in the notification of a breach by the Business Associate to the Covered Entity, a written description of the procedures that have been established to meet these requirements. Costs of such contact procedures will be borne by the Contractor or Contractor Parties.
- (E) Business Associate agrees that, in the event of a breach, it has the burden to demonstrate that it has complied with all notifications requirements set forth above, including evidence demonstrating the necessity of a delay in notification to the Covered Entity.

(i) Permitted Uses and Disclosure by Business Associate.

- (1) General Use and Disclosure Provisions Except as otherwise limited in this Section of the Contract, Business Associate may use or disclose PHI to perform functions, activities, or services for, or on behalf of, Covered Entity as specified in this Contract, provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.
- (2) Specific Use and Disclosure Provisions.
 - (A) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI for the proper management and administration of Business Associate or to carry out the legal responsibilities of Business Associate.
 - (B) Except as otherwise limited in this Section of the Contract, Business Associate may disclose PHI for the proper management and administration of Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person, and the person notifies Business Associate of any instances of

which it is aware in which the confidentiality of the information has been breached.

- (C) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI to provide Data Aggregation services to Covered Entity as permitted by 45 C.F.R. § 164.504(e)(2)(i)(B).

(j) Obligations of Covered Entity.

- (1) Covered Entity shall notify Business Associate of any limitations in its notice of privacy practices of Covered Entity, in accordance with 45 C.F.R. § 164.520, or to the extent that such limitation may affect Business Associate's use or disclosure of PHI.
- (2) Covered Entity shall notify Business Associate of any changes in, or revocation of, permission by Individual to use or disclose PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.
- (3) Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.

(k) Permissible Requests by Covered Entity. Covered Entity shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under the Privacy Rule if done by the Covered Entity, except that Business Associate may use and disclose PHI for data aggregation, and management and administrative activities of Business Associate, as permitted under this Section of the Contract.

(l) Term and Termination.

- (1) Term. The Term of this Section of the Contract shall be effective as of the date the Contract is effective and shall terminate when the information collected in accordance with clause h. (10) of this Section of the Contract is provided to the Covered Entity and all of the PHI provided by Covered Entity to Business Associate, or created or received by Business Associate on behalf of Covered Entity, is destroyed or returned to Covered Entity, or, if it is infeasible to return or destroy PHI, protections are extended to such information, in accordance with the termination provisions in this Section.
- (2) Termination for Cause Upon Covered Entity's knowledge of a material breach by Business Associate, Covered Entity shall either:
 - (A) Provide an opportunity for Business Associate to cure the breach or end the violation and terminate the Contract if Business Associate does not cure the breach or end the violation within the time specified by the Covered Entity; or
 - (B) Immediately terminate the Contract if Business Associate has breached a material term of this Section of the Contract and cure is not possible; or
 - (C) If neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.
- (3) Effect of Termination.

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- (A) Except as provided in (l)(2) above, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity, or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.
- (B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return of destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.

(m) Miscellaneous Provisions.

- (1) **Regulatory References.** A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.
- (2) **Amendment.** The Parties agree to take such action as is necessary to amend this Section of the Contract from time to time as is necessary for Covered Entity to comply with requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.
- (3) **Survival.** The respective rights and obligations of Business Associate shall survive the termination of this Contract.
- (4) **Effect on Contract.** Except as specifically required to implement the purposes of this Section of the Contract, all other terms of the Contract shall remain in force and effect.
- (5) **Construction.** This Section of the Contract shall be construed as broadly as necessary to implement and comply with the Privacy Standard. Any ambiguity in this Section of the Contract shall be resolved in favor of a meaning that complies, and is consistent with, the Privacy Standard.
- (6) **Disclaimer.** Covered Entity makes no warranty or representation that compliance with this Section of the Contract will be adequate or satisfactory for Business Associate's own purposes. Covered Entity shall not be liable to Business Associate for any claim, civil or criminal penalty, loss or damage related to or arising from the unauthorized use or disclosure of PHI by Business Associate or any of its officers, directors, employees, contractors or agents, or any third party to whom Business Associate has disclosed PHI contrary to the provisions of this Contract or applicable law. Business Associate is solely responsible for all decisions made, and actions taken, by Business Associate regarding the safeguarding, use and disclosure of PHI within its possession, custody or control.
- (7) **Indemnification.** The Business Associate shall indemnify and hold the Covered Entity harmless from and against any and all claims, liabilities, judgments, fines, assessments,

penalties, awards and any statutory damages that may be imposed or assessed pursuant to HIPAA, as amended or the HITECH Act, including, without limitation, attorney's fees, expert witness fees, costs of investigation, litigation or dispute resolution, and costs awarded thereunder, relating to or arising out of any violation by the Business Associate and its agents, including subcontractors, of any obligation of Business Associate and its agents, including subcontractors, under this section of the contract, under HIPAA, the HITECH Act, the Privacy Rule and the Security Rule.

62. Protection of Confidential Information.

- (a) Contractor and Contractor Parties, at their own expense, have a duty to and shall protect from a Confidential Information Breach any and all Confidential Information which they come to possess or control, wherever and however stored or maintained, in a commercially reasonable manner in accordance with current industry standards.
 - (b) Each Contractor or Contractor Party shall develop, implement and maintain a comprehensive data - security program for the protection of Confidential Information. The safeguards contained in such program shall be consistent with and comply with the safeguards for protection of Confidential Information, and information of a similar character, as set forth in all applicable federal and state law and written policy of the Department or State concerning the confidentiality of Confidential Information. Such data-security program shall include, but not be limited to, the following:
 - (1) A security policy for employees related to the storage, access and transportation of data containing Confidential Information;
 - (2) Reasonable restrictions on access to records containing Confidential Information, including access to any locked storage where such records are kept;
 - (3) A process for reviewing policies and security measures at least annually;
 - (4) Creating secure access controls to Confidential Information, including but not limited to passwords; and
 - (5) Encrypting of Confidential Information that is stored on laptops, portable devices or being transmitted electronically.
 - (c) The Contractor and Contractor Parties shall notify the Department and the Connecticut Office of the Attorney General as soon as practical, but no later than twenty-four (24) hours, after they become aware of or suspect that any Confidential Information which Contractor or Contractor Parties have come to possess or control has been subject to a Confidential Information Breach. If a Confidential Information Breach has occurred, the Contractor shall, within three (3) business days after the notification, present a credit monitoring and protection plan to the Commissioner of Administrative Services, the Department and the Connecticut Office of the Attorney General, for review and approval. Such credit monitoring or protection plan shall be made available by the Contractor at its own cost and expense to all individuals affected by the Confidential Information Breach. Such credit monitoring or protection plan shall include, but is not limited to reimbursement for the cost of placing and
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lifting one (1) security freeze per credit file pursuant to Connecticut General Statutes § 36a-701a. Such credit monitoring or protection plans shall be approved by the State in accordance with this Section and shall cover a length of time commensurate with the circumstances of the Confidential Information Breach. The Contractors' costs and expenses for the credit monitoring and protection plan shall not be recoverable from the Department, any State of Connecticut entity or any affected individuals.

- (d) The Contractor shall incorporate the requirements of this Section in all subcontracts requiring each Contractor Party to safeguard Confidential Information in the same manner as provided for in this Section.
- (e) Nothing in this Section shall supersede in any manner Contractor's or Contractor Party's obligations pursuant to HIPAA or the provisions of this Contract concerning the obligations of the Contractor as a Business Associate of the Department.
63. **Governmental Enactments.** All references in this Contract to any statute, public act, regulation, code or executive order shall mean such statute, public act, regulation, code or executive order, respectively, as it has been amended, replaced or superseded at any time. Notwithstanding any language in this Contract that relates to such statute, public act, regulation, code or executive order, and notwithstanding a lack of a formal amendment to this Contract, this Contract shall always be read and interpreted as if it contained the most current and applicable wording and requirements of such statute, public act, regulation, code or executive order as if their most current language had been used in and requirements incorporated into this Contract at the time of its execution.

The parties are signing this Contract on the date below their respective signatures.

[AWARDED CONTRACTOR]

By: _____

Print Name _____

Title: _____

Date: _____

APPROVED AS TO FORM

State of Connecticut

Office of the Attorney General

By: _____

Title: _____

Date: _____

STATE OF CONNECTICUT
Department of Administrative Services

By: _____

Print Name _____

Title: _____

Date: _____

EBF APPLICATION SCORING SHEET

ENERGY EFFICIENCY PROJECT APPLICATIONS

Reviewer Name: _____

Date: _____

Applicant: _____

Application Number: _____

Overall project meets cost effectiveness requirements? Yes No

Section A	PROJECT IS ESTIMATED TO REDUCE THE TOTAL ENERGY CONSUMPTION (ELECTRIC + HEATING) OF THE FACILITIES INCLUDED IN THE APPLICATION BY 20%	UP TO 24 POINTS	SCORE
	- Total energy reduction is greater than 25%	21 - 24 points	
	- Total energy reduction is 20%-25%	16 - 20 points	
	- Total energy reduction is less than 20%	0 - 15 points	
Notes:			
Section A	PROJECT INCLUDES BOTH ELECTRIC AND HEATING MEASURES	UP TO 22 POINTS	SCORE
	- Project includes measures that reduce electric consumption as well as measures that reduce heating energy consumption	12 - 22 points	
	- Project does not include measures that reduce electric consumption as well as measures that reduce heating energy consumption	0 - 11 points	
	Notes:		
Section A	PROJECT INCLUDES NON-LIGHTING ELECTRIC MEASURES (excluding streetlights)	UP TO 20 POINTS	SCORE
	- More than 10% of project cost is from non-lighting measures	11 - 20 points	
	- Less than 10% of project cost is from non-lighting measures	0 - 10 points	
	Notes:		
SECTION A SCORE (UP TO 66 POINTS)			

Section C	ADDITIONAL CRITERIA	UP TO 13 POINTS	SCORE
	- Applicant has Distressed Community status	5 points	
	- Applicant is applying for energy efficiency AND renewable energy projects and both projects receive a score of 80 or higher	0 - 5 points	
	If applicant is applying for electric vehicle (EV) charging infrastructure:		
	- EV infrastructure will be installed within 90 days of loan signing	0.5 point	
	- All EV charging infrastructure is accessible by the public	0.5 point	
	- Greater than or equal to two (2) charging ports will be installed	0.5 point	
	- All EV charging infrastructure will have load management capabilities	0.5 point	
	- Energy efficiency project(s) providing savings \geq to the estimated increase in electricity demand from the EV charging infrastructure, will be installed <u>at the same time</u> as the EV charging stations	1 point	
SECTION C SCORE (UP TO 13 POINTS)			

Section B	GREEN INITIATIVES (BASELINE + ENERGY MANAGEMENT PLAN)	UP TO 10 POINTS	
	Baseline	UP TO 5 POINTS	SCORE
	- Baseline data is complete, appears accurate and is submitted in an acceptable format; Narrative demonstrates that the applicant has reviewed, interpreted and understands the data	4 - 5 points	
	- Baseline is complete and accurate but narrative is lacking OR Baseline is incomplete and/or inaccurate but narrative is strong	3 points	
	- Baseline is incomplete and/or inaccurate and/or is not submitted in an acceptable format; Narrative does not demonstrate that the applicant has reviewed, interpreted and understands the data	0 - 2 points	
	Notes:		
	Energy Management Plan (EMP) / Letter of Intent (LOI)	UP TO 5 POINTS	SCORE
	- EMP includes a numeric goal for energy reduction, a detailed implementation plan and additional components that strengthen the document OR LOI includes information beyond what was provided in the template that strengthens the document	4 - 5 points	
	- EMP includes a goal for energy reduction, a detailed implementation plan OR LOI includes information provided in the template or equivalent	2 - 3 points	
	- EMP does not include a numeric goal for energy reduction or an implementation OR LOI lacks sufficient detail	0 - 1 points	
	Notes:		
	READINESS TO PROCEED	UP TO 10 POINTS	SCORE
	- Project schedule demonstrates that the project will be ready to commence construction within 90 days of loan signing	6 - 10 points	
	- Project schedule does not demonstrate that the project will be ready to commence construction within 90 days of loan signing	0 - 5 points	
	Notes:		
	APPLICATION QUALITY AND PROJECT STRENGTH	UP TO 14 POINTS	SCORE
	- Project costs and savings are reasonable and well-supported with ASHRAE Level I audit reports or equivalent; Supporting audits or quotes are not more than 3 years old	0 - 10 points	
	- Project description is sufficiently detailed and well-written	0 - 2 points	
	- Project schedule is sufficiently detailed and reasonable	0 - 2 points	
	Notes:		
SECTION B SCORE (UP TO 34 POINTS)			

SECTION A _____ + SECTION B _____ + SECTION C _____ = TOTAL SCORE _____

EBF APPLICATION SCORING SHEET

RENEWABLE ENERGY APPLICATIONS

Reviewer Name: _____

Date: _____

Applicant: _____

Application Number: _____

Overall project meets cost effectiveness requirements? Yes No

PROJECT SPECIFICATIONS		UP TO 20 POINTS	SCORE
- Proposed renewable energy equipment is UL listed		0 or 5 points	
- Proposed renewable energy equipment has a warranty		0 or 5 points	
- Proposed turbine is 100kW or greater and is a direct drive nacelle (Wind Only)		0 or 10 points	
- Proposed equipment is on CEC list of eligible equipment (PV Only)		0 or 10 points	
Total:			
Notes:			
TURNKEY CONTRACT FROM DEVELOPER		UP TO 24 POINTS	SCORE
- Length of Workmanship warranty		0 - 6 points	
- One Line Drawing matches system size and equipment listed in proposal		0 - 6 points	
- Timeline includes all relevant milestones (permitting, interconnection, etc.) and other funding sources (REF, REG, PPA, etc.) allowing for any additional application time in the timeline		0 - 6 points	
- Turnkey service, including all project components including permitting, interconnection, warranty, commissioning, etc. are included		0 - 6 points	
Total:			
Notes:			
PROJECT COST		UP TO 25 POINTS	SCORE
- Cost/watt		0 - 9 points	
- Capacity Factor (scale to include PV and Wind)		0 - 8 points	
- Other Funding Sources are clearly identified and leveraged		0 - 8 points	
Total:			
Notes:			
SECTION A SCORE (UP TO 69 POINTS)			

ADDITIONAL CRITERIA		UP TO 13 POINTS	SCORE
- Applicant has Distressed Community status		5 points	
- Applicant is applying for energy efficiency AND renewable energy projects and both projects receive a score of 80 or higher		0 - 5 points	
If applicant is applying for electric vehicle (EV) charging infrastructure:			
- EV infrastructure will be installed within 90 days of loan signing		0.5 point	
- All EV charging infrastructure is accessible by the public		0.5 point	
- Greater than or equal to two (2) charging ports will be installed		0.5 point	
- All EV charging infrastructure will have load management capabilities		0.5 point	
- Renewable energy project(s) providing energy \geq to the estimated increase in electricity demand from the EV charging infrastructure, will be installed <u>at the same time</u> as the EV charging stations		1 point	
SECTION C SCORE (UP TO 13 POINTS)			

GREEN INITIATIVES (BASELINE + ENERGY MANAGEMENT PLAN)		UP TO 10 POINTS	
Baseline		UP TO 5 POINTS	SCORE
<ul style="list-style-type: none"> - Baseline data is complete, appears accurate and is submitted in an acceptable format; Narrative demonstrates that the applicant has reviewed, interpreted and understands the data 		4 - 5 points	
<ul style="list-style-type: none"> - Baseline is complete and accurate but narrative is lacking OR Baseline is incomplete and/or inaccurate but narrative is strong 		3 points	
<ul style="list-style-type: none"> - Baseline is incomplete and/or inaccurate and/or is not submitted in an acceptable format; Narrative does not demonstrate that the applicant has reviewed, interpreted and understands the data 		0 - 2 points	
Notes:			
Energy Management Plan (EMP) / Letter of Intent (LOI)		UP TO 5 POINTS	SCORE
<ul style="list-style-type: none"> - EMP includes a numeric goal for energy reduction, a detailed implementation plan and additional components that strengthen the document OR LOI includes information beyond what was provided in the template that strengthens the document 		4 - 5 points	
<ul style="list-style-type: none"> - EMP includes a goal for energy reduction, a detailed implementation plan OR LOI includes information provided in the template or equivalent 		2 - 3 points	
<ul style="list-style-type: none"> - EMP does not include a numeric goal for energy reduction or an implementation OR LOI lacks sufficient detail 		0 - 1 points	
Notes:			
READINESS TO PROCEED		UP TO 10 POINTS	SCORE
<ul style="list-style-type: none"> - Project timeline demonstrates that the project will be ready to commence construction within 90 days of loan signing 		6 - 10 points	
<ul style="list-style-type: none"> - Project timeline does not demonstrate that the project will be ready to commence construction within 90 days of loan signing 		0 - 5 points	
Notes:			
APPLICATION QUALITY AND PROJECT STRENGTH		UP TO 11 POINTS	SCORE
<ul style="list-style-type: none"> - Project costs and savings are well-supported in the turnkey contract; Turnkey contract is not more than 2 years old 		0 - 7 points	
<ul style="list-style-type: none"> - Project description is sufficiently detailed and well-written 		0 - 2 points	
<ul style="list-style-type: none"> - Project schedule is sufficiently detailed and reasonable 		0 - 2 points	
Notes:			
SECTION B SCORE (UP TO 31 POINTS)			

	ADDITIONAL CRITERIA	UP TO 3 POINTS	SCORE
	If applicant is applying for energy storage infrastructure:		
	- Energy storage will be installed within 90 days of loan signing	0.5 point	
	- All energy storage equipment is UL listed	0.5 point	
	- All energy storage equipment has a minimum 1-year workmanship and equipment warranty	0.5 point	
	- Energy storage equipment will serve a critical facility.		
Section D	Where an eligible “critical facility” is defined as “A public facility that provides services and functions essential to a community, especially during and after a disaster. Examples of critical facilities include: police stations; fire stations; emergency operations centers; schools and day care centers if designated as shelters or evacuation centers; power generating stations and other utility facilities vital to maintaining or restoring normal services; and drinking water and wastewater treatment plants.” (modified FEMA definition)	1.5 point	
	SECTION D SCORE (UP TO 3 POINTS)		

SECTION A _____ + SECTION B _____ + SECTION C _____ + SECTION D _____ = TOTAL SCORE _____



**MEMORANDUM OF
UNDERSTANDING**
between the CEO and FACILITY OWNER

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Overview

One hallmark of success in the Colorado Energy Office's (CEO's) Energy Performance Contracting Program (EPC) is the support provided by one of CEO's EPC project consultants to each and every EPC project. A CEO EPC project consultant provides coaching and technical assistance to the Facility Owner every step of the way to ensure that the Colorado Energy Performance Contracting Program is a successful experience for all.

The EPC Program brochure describes Colorado's Standards for Success for the relationship between CEO and its clients and their energy service company. It also outlines the coaching and technical assistance provided Program participants **at no charge** throughout the life cycle of an EPC project. CEO does this to ensure a successful experience through what can be an involved technical, legal and financial process.

In addition, CEO offers standardized program contracts and processes and a pool of pre-qualified Energy Service Companies to make EPC projects even more approachable.

To benefit from this package of coaching and technical assistance, please:

1. Have the authorized signer from your state agency or local jurisdiction sign the following non-binding Memorandum of Understanding;
2. Complete the attached Facility Owner Information sheet; and
3. Return the paperwork to Mirka della Cava, Energy Performance Contracting Program Manager at mirka.dellacava@state.co.us or the address below. Should you have any questions or concerns, her direct phone number is 303.866.3464.

Best wishes for your venture into energy and cost savings!



**MEMORANDUM OF UNDERSTANDING
between the COLORADO ENERGY OFFICE
and [FACILITY OWNER]**

THIS MEMORANDUM OF UNDERSTANDING (“MOU”) is entered into by and between the STATE OF COLORADO (the “State”), acting by and through the Colorado Energy Office (the “CEO”), and [FACILITY OWNER] (the “Facility Owner”). “Party” means the State, CEO or Facility Owner and “Parties” means both the State/CEO and the Facility Owner.

RECITALS

WHEREAS, in compliance with the State Procurement Code as set forth in section 24-101-101, *et seq.*, C.R.S. and any applicable public bidding requirements, the CEO issued a Request for Proposals (“RFP”) to energy service companies (“ESCOs”) to provide as needed energy performance contract services for its Energy Performance Contracting Program; and

WHEREAS, as a result of the RFP process, CEO maintains a list of pre-qualified ESCOs that are eligible for final selection by State agencies and local governments and/or municipalities to provide energy performance contracting services; and

WHEREAS, the purpose of this MOU is to provide the Facility Owner with access to the services and support of the CEO’s Energy Performance Contracting (“EPC”) Program; and

WHEREAS, in furtherance of the purpose of this MOU, the CEO is available to assist the Facility Owner with the development and implementation of EPC projects, as well as to encourage the Facility Owner to adhere to the guidelines of the EPC Program.

NOW, THEREFORE, for and in consideration of the mutual covenants and the representations and covenants contained herein, the parties hereto agree as follows:

- 1. Effective Date of MOU.** This MOU shall become effective upon the later date on which the Director or authorized designee of CEO, or the representative for the Facility Owner has signed it.
- 2. Term of MOU.** The Parties’ respective performances under this MOU shall commence on the Effective Date and shall expire one year from date of signature or at the end of the term of services contracted from a pre-qualified ESCO.
- 3. Responsibilities of the CEO and the EPC Program to Facility Owner.** The responsibilities of the CEO and the EPC Program include, but are not limited to:
 - a. Upon execution of this MOU, CEO will assign an EPC project consultant to provide advice and technical assistance throughout the lifecycle of Facility Owner’s project.
 - b. CEO will provide the Facility Owner with information on the CEO website regarding the pre-approved, pre-qualified list of ESCOs, which includes links to the ESCOs’ website for further information;
 - c. CEO will assist Facility Owner to procure the services of an ESCO from the pre-qualified list of approved ESCOs;

- d. CEO will assist the Facility Owner with technical guidance in order to develop and execute a Technical Energy Audit and Project Proposal Contract with a pre-qualified ESCO and also support the Facility Owner with any amendments thereof;
- e. CEO will provide technical guidance to the Facility Owner and attend on-site meetings between the Facility Owner and ESCO, as needed and subject to availability;
- f. CEO will assist the Facility Owner to develop and initiate an energy performance contract project;
- g. CEO will monitor project implementation for audits and for energy performance contract projects;
- h. CEO will facilitate the energy performance contract process to ensure commitments are met by both the ESCO and the Facility Owner;
- i. CEO will review Facility Owner's audits, proposals, calculations, contracts and measurement and verification reports;
- j. As required for school districts and requested by other public agencies, the CEO will complete a construction walk-through of project facilities prior to the "Notice of Substantial Completion" documents being finalized;
- k. If applicable, CEO will identify possible solutions to mediate any conflicts between the Facility Owner and the ESCO.

4. Responsibilities of the Facility Owner. The responsibilities of the Facility Owner include:

- a. By executing this MOU, Facility Owner agrees to program participation in CEO's EPC Program and engage the CEO for assistance in all stages of the EPC Program, including project development;
- b. Using a secondary selection process, Facility Owner agrees to select an ESCO from CEO's current pre-qualified list of ESCOs and which meets the requirements of Facility Owner's procurement rules, regulations and statutes (if applicable);
- c. Facility Owner will provide information as needed for the feasibility study/technical energy audit and any other project development activities;
- d. Facility Owner will review/approve the ESCO's proposals, designs and reports in a timely manner;
- e. Facility Owner agrees to execute CEO approved contracts with the ESCO;
- f. Facility Owner agrees to arrange for project financing, and with the assistance and advice of legal counsel, execute appropriate financing documents and EPC contract;
- g. Facility Owner agrees to provide project management;
- h. Facility Owner will endeavor to work with the pre-qualified ESCO to develop and refine project parameters and any other project development activities;
- i. Facility Owner will assign its staff, employees, representatives to the facility project team including operations, maintenance, financial and upper management personnel;
- j. Depending on the subject matter to be discussed, Facility Owner will ensure appropriate personnel attend project development meetings;

- k. Facility Owner will provide access to and escort ESCO, its subcontractors and CEO to buildings during mutually agreed-upon hours;
 - l. If Facility Owner is a school district, Facility Owner agrees to allow CEO to complete a construction walk-through of project facilities prior to the "Notice of Substantial Completion" documents being finalized;
 - l. During project reviews and any other reviews, Facility Owner will endeavor to address CEO's recommendations;
 - m. As requested by CEO and as needed, Facility Owner agrees to provide CEO with information regarding measurement and verification activities.
5. THIS MOU IS NOT INTENDED TO CREATE, NOR WILL THIS MOU BE CONSTRUED OR INTERPRETED AS CREATING A LEGALLY BINDING AND ENFORCEABLE CONTRACT BETWEEN THE PARTIES. IN THE EVENT EITHER PARTY FAILS TO FULLY COMPLY WITH THE PROVISIONS OF THIS MOU, THERE WILL BE NO LEGAL OR EQUITABLE REMEDIES AVAILABLE TO EITHER PARTY. THE SOLE REMEDY AVAILABLE TO THE PARTIES FOR FAILURE TO FULLY COMPLY WITH THE PROVISIONS OF THIS MOU IS TO TERMINATE THIS MOU. THE FACILITY OWNER ACKNOWLEDGES AND AGREES THAT CEO'S SERVICES MAY INCLUDE ADVICE AND RECOMMENDATIONS, BUT ALL DECISIONS IN CONNECTION WITH THE FACILITY OWNER'S EPC PROJECT SHALL BE THE SOLE RESPONSIBILITY OF THE FACILITY OWNER, ITS AGENTS AND CONTRACTORS.

6. **Signatures.** IN WITNESS WHEREOF, the Parties have executed this MOU as of the Effective Date.

STATE OF COLORADO, acting by and through the COLORADO ENERGY OFFICE		FACILITY OWNER:	
Will Toor, CEO Director	Date	Name: Title:	Date
		<input type="checkbox"/> Yes! I have reviewed this MOU and accept CEO's free technical support for an EPC project.	
		<input type="checkbox"/> No thank you. I have reviewed this MOU and decline CEO's free technical support for an EPC project.	
Mirka della Cava EPC Program Manager	Date		



FACILITY OWNER INFORMATION

for CEO use only

Owner's representative

Name	
Title	
Mailing address	
Email address	
Direct office phone	
Cell phone	

Project information

Types of facilities to be assessed for energy savings:	1.	2.	3.	4.	5.	6.	7.	8.
Have you selected an ESCO?	<input type="checkbox"/>	Yes. Name:	<input type="checkbox"/> No					
If yes, has procurement department validated selection?	<input type="checkbox"/>	Yes.	<input type="checkbox"/> Not yet.					

Please list any immediate needs you have related to your performance contract.



REVISED JUNE 2016

OVERVIEW

Upon execution of a Memorandum of Understanding between a public jurisdiction and the Colorado Energy Office (CEO), CEO provides its new client technical assistance throughout the lifecycle of its project, at no charge to the jurisdiction. CEO's only other requirement for receiving this EPC Program benefit is that the client select an energy service company (ESCO) from CEO's pre-qualified list of ESCOs. Contact information for each pre-qualified ESCO is maintained on CEO's public sector EPC webpage.

How the pool of pre-qualified ESCOs is created and maintained

One key element contributing to the success of the Colorado Energy Performance Contracting (EPC) Program is pre-qualifying energy service companies (ESCOs) to provide a pool from which state agencies and offices, institutions of higher education and all types of local government can develop an energy performance contracting project.

The Colorado Energy Office (CEO) teams with the Colorado Office of the State Architect (OSA) to conduct an open and transparent competitive selection process, following state procurement guidelines, to maintain a pool of pre-qualified ESCOs. These pre-qualified ESCOs provide as-needed energy performance contracting (EPC) services for any Colorado public jurisdiction within the standards for success of the Colorado EPC Program.

CEO and OSA pre-qualify an ESCO based upon its energy engineering expertise, company profile and depth and breadth of available services. Each pre-qualified ESCO executes a non-monetary, annually renewable contract with CEO that identifies expectations for ESCO performance. These expectations include adherence to federal and state statutory and regulatory requirements, industry standards and the Colorado EPC Program's own standards for success. The most recent solicitation for ESCO pre-qualification and the current ESCO Base Contract are provided on CEO's webpage.

While quality assurances and controls are identified in the ESCO Base Contract with CEO, CEO does not dictate ESCO business models or geographic focus or vertical market interests. CEO hopes clients find diversity within the pool of pre-qualified ESCOs.

This ESCO pre-qualification process, along with standardized contracts, protocols, and guidance documents, and other toolkits, and technical assistance available to public jurisdictions signing the Memorandum of Understanding with CEO, helps provide Clients with a smooth, approachable and safe EPC process.

Selecting the pre-qualified ESCO most suited to client needs

The client's own procurement and contracting policies direct its selection process. For clients with procurement requirements that drive a competitive selection, CEO provides this **Secondary ESCO Selection Process Toolkit**. State agencies and institutions of higher education are required to use the process described in the Toolkit. Some local jurisdictions have procurement and contracting policies that dictate a secondary selection process; others do not. As a state office in a home rule state, CEO supports its clients either way. That being said, public jurisdictions are encouraged to leverage these well-vetted guidelines to select the ESCO best suited to meet their needs.

The Toolkit includes the following documents:

- **Selection Process Guidance**, starting on page 3 of this .pdf document, for client's reference during the solicitation process.
- **Request for Proposal Template**, a Word document, to be customized by the client before issuance;
- **Cost and Pricing Tool**, an Excel spreadsheet, to be included as Attachment B to the Request for Proposal;
- **List of Potential Interview Questions**, a Word document, to aid Selection Committee discussion; and
- **ESCO Proposal Scoring Tool**, an Excel spreadsheet, for customization and use by client's Selection Committee members in assessing proposals.

A client's assigned CEO project consultant is available to support selection of the pre-qualified ESCO that best fit project goals and objectives. Please be aware that the CEO EPC project consultant cannot participate as a voting member of the Public Facility Owner's Selection Committee. He or she cannot provide anything more than clarification during interviews or subsequent deliberations and decision-making. However, he or she can provide technical assistance by asking or answering clarifying questions during the interviews or selection committee deliberations afterwards.

SELECTION PROCESS GUIDANCE

CEO recommends the following activities in support of a successful solicitation.

1. Consider the CEO's list of pre-qualified ESCOs.

The CEO EPC Program's free technical assistance throughout the lifecycle of a client's EPC project is contingent upon (1) execution of a Memorandum of Understanding with the CEO, and (2) selection of one of the EPC Program's list of pre-qualified ESCOs. A current list of all pre-qualified ESCOs appears on the CEO's EPC webpage: <https://www.colorado.gov/pacific/energyoffice/public-energy-performance-contracting>.

Colorado's pool of pre-qualified ESCOs offers robust diversity in business models and geographic and vertical market interests. The CEO EPC Program's public sector clients may wish to simply solicit responses from all pre-qualified ESCOs, so as not to overlook any potentially qualified ESCO. Otherwise, select at least three pre-qualified ESCOs. If an ESCO declines to respond, it is not necessary to identify another ESCO to take its place.

2. Get organized for the solicitation process.

Before developing and issuing a solicitation for proposals:

- Have a conversation with the purchasing office to determine its requirements.
- Identify members of the selection committee. Consider facilities, finance, sustainability, and administrative office representatives. Each of these functional areas will be engaged in and important to successful project development and execution.
- Identify a timeline for the selection process. Consider the following:

Activity	Potential Timeline
Issue RFP	Day 1
Hold pre-proposal and walk-thru meeting	Day 14
Proposals due	Day 28 at time
Review proposals. Selection Committee meets to develop shortlist. Arrange interview times.	Days 29- 42
Interview ESCOs	Day 43
Select ESCO	Day 43-44
Make recommendation to governing body	ASAP
Develop and execute TEA and Project Proposal Contract	14 days after approval
ESCO commences TEA	Upon execution

- Identify criteria for review of proposals and selection of candidates for interviewing. Customize the **ESCO Proposal Scoring Tool** included in this **Secondary ESCO Selection Toolkit**, accordingly.

- Identify questions to ask during the interviews. See the **List of Potential Interview Questions** included in this **Secondary ESCO Selection Toolkit**.
- Confirm the RFP selection procedure/methodology with the purchasing office.
- Identify scoring criteria/method to determine which ESCO to select.

3. Develop the ESCO solicitation

- Familiarize the Selection Committee with the **Request for Proposals Template** included in this **Secondary ESCO Selection Toolkit**.
- Examples of RFPs issued by other Colorado public jurisdictions may be available from the CEO EPC project consultant.
- Collect or develop the following information:
 - Procurement requirements.
 - Information about the buildings and other facilities you wish your ESCO to include in the Investment Grade Audit (IGA). Include name, unique building number (if applicable), occupancy type, square footage, prior improvements, and age if available.
 - Annual utility use and cost, in the form of monthly utility bills for the previous 12 (or more) months. Three years of utility data is preferred, but 12 months is the minimum. This information is to help interested ESCOs determine what level of savings opportunity there may be.
 - Information about any special interests, such as evaluating solar or other renewable technologies, water and wastewater treatment plants, pools, recreation centers, occupant behavior programs, etc.
 - Information on any federal, state, local or owner mandate/sustainability requirements.
 - Time constraints or other scheduling constraints that may impact construction.
 - Pre-proposal meeting/walk-through date, at which time interested ESCOs will meet on location to hear more about program goals, ask and answer questions. Show them a few priority buildings for examples. Indicate whether the pre-proposal/site visit meeting is mandatory. CEO recommends mandatory pre-proposal meeting/site visit attendance.
 - Proposal due date and tentative interview date(s).
 - Contact information.
 - Other specific information that supports scoring and selection criteria.
- Customize the **Request for Proposals Template** with the above information.
- The CEO EPC project consultant can support these efforts, to ensure the content serves the client's need for a productive selection process.
- Provide the Selection Committee members and the CEO EPC project consultant with an opportunity to review and comment before issuing the RFP.
- Issue the RFP according to the procurement office's requirements.

4. Select the ESCO that best fits the proposed project.

After the proposal submittal deadline has passed:

- Open the proposals received by the deadline in accordance with procurement office requirements.
- Provide Selection Committee members and the CEO EPC project consultant with copies of all proposals.
 - Selection Committee members review and evaluate proposals independently.
 - The CEO EPC project consultant will assist in the review of proposals, but will remain neutral in ESCO selection. His or her review includes assessment of the project-specific percentages quoted in the Cost and Pricing Tool submitted by each ESCO with its proposal, against the current ESCO Base Contract maximum percentages on file at CEO.
- Selection Committee and CEO EPC project consultant meet to discuss proposal scoring results and determine if and how many ESCOs to interview.
- Notify “short-listed” ESCOs.
- Schedule interviews.
- Conduct interviews. Your CEO project consultant will attend interviews, but must be a neutral, non-voting participant. He/she can provide clarifying information.
- Make final ESCO selection.
- Negotiate, customize, and finalize the CEO’s **Investment Grade Audit and Project Proposal Contract** template. The template is available from the client’s CEO EPC project consultant or the EPC Program webpage. The CEO EPC project consultant will assist in its finalization.

RFP TEMPLATE, REVISED JUNE 2016

EPC Program Client: Prior to releasing your RFP, please insert your project-specific information in the [blue fields], and delete all red text. Note: [entity name] is the name of your public jurisdiction.

[Public Facility Owner logo]

REQUEST FOR PROPOSALS

ENERGY PERFORMANCE CONTRACTING SERVICES Investment Grade Audit and EPC Project Proposal

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1. Management Approach
2. Project Management and Coordination
3. Appropriate Market Sector Experience/Expertise
4. Project Personnel and Staffing
5. Project Approach
6. Cost and Pricing
7. Best Value

ATTACHMENT A: BUILDING AND FACILITY INFORMATION

ATTACHMENT B: CEO EPC COST AND PRICING TOOL

[Entity Name] RFP Energy Performance Contracting Services

SECTION A: SELECTION PROCESS

1. GENERAL INFORMATION

[Entity name] seeks qualified Energy Service Companies (ESCO) to perform an investment grade audit (IGA) and develop an EPC Project Proposal. The [entity name] has executed a Memorandum of Understanding with the Colorado Energy Office (CEO)'s Energy Performance Contracting (EPC) Program and will follow its guidelines, practices, and procedures.

The goals of the project are to: (1) evaluate the [entity name]'s facilities for energy and water efficiency upgrades, renewable energy systems, and other measures as requested (2) conduct an IGA and provide a report that makes recommendations for possible projects, (3) support the [entity name]'s efforts in locating funding and/or financing of the proposed energy projects within the boundaries of Dodd-Frank and other regulations, (4) if retained, execute and implement an EPC. EPC execution includes guaranteeing energy and water savings through a specific scope of work, and measuring and verifying that the savings guarantee has been delivered. EPC implementation including construction and implementation oversight and management, commissioning, and execution of the measurement and verification (M&V) plan that meets or exceeds the requirements of the [entity name], enabling legislation, and CEO protocols.

While it is the desire of the [entity name] to enter into a long-term partnership with the awarded ESCO, [entity name] does not guarantee the award of an EPC to the chosen ESCO. An EPC award will be determined following acceptance of the project proposal.

2. TIMELINE

The following table provides the anticipated timeline for the completion of this RFP process.

Note: The dates listed in red are suggested. After consultation with Purchasing/Procurement, please insert your schedule.

Activity	Timeline
Issue RFP.	<i>Day 1</i>
Hold pre-proposal meeting and conduct site visit.	<i>Day 14 and time</i>
Proposals due	<i>Day 28 and time</i>
Review proposals. Selection Committee meets to develop shortlist. Arrange interview times.	<i>Days 29- 42</i>
Interview ESCOs.	<i>Day 43</i>
Select ESCO.	<i>Day 43-44</i>
Make recommendation to governing body.	<i>?</i>
Develop and execute IGA and Project Proposal Contract.	<i>14 days after approval</i>
ESCO commences IGA.	<i>Upon execution</i>

3. MINIMUM QUALIFICATIONS

[Entity name] intends to follow the CEO EPC Program's Secondary ESCO Selection Process to award a contract.

[Entity name] will only consider proposals from the CEO's list of pre-qualified Energy Service Companies (ESCOs).

4. SCOPE OF WORK

The **[entity name]** desires an aggressive energy and water savings program to result from the relationship.

The awarded ESCO shall evaluate **[number of buildings to be audited]** buildings and other facilities for energy and water efficiency upgrades, renewable energy systems, and other measures as requested. (Buildings and other facility information, including annual utility use and cost, may be found in Attachment A.) *Include information about any buildings or facilities slated for replacement, funding mechanisms, current projects underway in Attachment A.*

In addition, **[entity name]** has several specific projects to be included in the overall engineering review in addition to the firm's proposed buildings found in Attachment A.

Specific projects to be evaluated in the IGA process include: *Describe any projects that you have already identified for your buildings and describe your interests in deep energy retrofit planning, renewable energy technology evaluation, water and wastewater treatment plants, pools, recreation centers, occupant behavior change, etc. Include as many example projects as necessary.*

- **[Example project 1 in {name of building(s)}]**
- **[Example project 2 in {name of building(s)}]**

This does not limit the ESCO from suggesting other energy savings projects in the normal course of the contract.

In their ESCO Base Contract with CEO, pre-qualified ESCOs agree to abide by CEO's Standard IGA Pricing model. *The IGA Pricing Table tab in the CEO's Cost and Pricing Tool identifies the audit cost per square foot for typical public buildings listed in Attachment A, such as schools, courthouses, libraries, administrative offices and other types of commercial buildings. For other types of special systems or facilities as listed above, such as street lights, ball fields, or wastewater facilities, you and your selected ESCO will negotiate audit costs during IGA contract development.*

After the execution of the IGA contract, the chosen ESCO will then provide a comprehensive IGA report and EPC Project Proposal to make recommendations for possible projects based on the results of the

[Entity Name] RFP Energy Performance Contracting Services

IGA. Upon completion of the IGA and EPC Project Proposal, [entity name] may elect to enter into an EPC with the awarded ESCO for design, project management, construction, commissioning and measurement and verification services.

5. PRE-PROPOSAL CONFERENCE

Note that a pre-proposal conference will be held on the date and time identified in Section A.2. Timeline. The pre-proposal conference will begin at the [building name and full address]. During the pre-proposal conference, certain facilities may be visited.

This pre-proposal conference is [not?] mandatory; however, the [entity name] highly encourages interested firms to have representatives attend to get familiarized with [entity name], its facilities, subsystems, and current state of energy usage. *CEO recommends that this conference be mandatory.*

6. PROPOSAL DUE DATE

Proposals are due by the date and time identified in Section A.2. Proposals should be sent electronically to [entity's contact person's name, title, and email address].

CEO strongly recommends electronic proposal submissions. If your entity prefers hard copies, please request the proposals to be sent to your mailing address. Typically, entities request three copies of each proposal signed by the bidder or his/her duly authorized agent. Proposals should be submitted in sealed envelopes, and marked on the outside with "PROPOSAL: ENERGY PERFORMANCE CONTRACTING" and bidder's name. (Customize this process to comply with your entity's procurement requirements.)

7. SELECTION

The [entity name]'s EPC Selection Committee will review the proposals submitted by the stated deadline.

A project consultant assigned by the CEO EPC Program will provide the Selection Committee with technical assistance, but will not/ cannot participate as a member of the Selection Committee, nor engage in decision-making.

The [entity name] [will/may] schedule interviews with [number] firms. *Please reference your procurement procedures. Typically, agencies interview three candidates.*

[Entity name] anticipates conducting interviews on the date identified in Section A.2. Interviews will be held at [building name and address].

After the interview process, the committee will make a recommendation to the [entity's governing body]. The [entity name] reserves the right to waive any formality or any informality in the proposal

[Entity Name] RFP Energy Performance Contracting Services

award process. **[Entity name]** reserves the right to accept any proposal, in whole or in part, and to reject any or all proposals as necessary.

8. AWARD

After contract award, the **[entity name]** and selected ESCO will negotiate and finalize the IGA and Project Proposal Contract.

9. CONTACT INFORMATION

Questions regarding this Request for Proposal should be directed to: **[Name, title, organizational division, telephone, email, etc.]** no later than **[date and time]**.

SECTION B: SELECTION CRITERIA

Pre-qualified ESCO proposals will be evaluated on its written response to the following criteria.

1. MANAGEMENT APPROACH

1.1 Project Management and Coordination

Provide ESCO's organization chart (by name as available) for implementing and managing the proposed project, including the title of each individual shown and the lines of authority within the overall organization. Identify portions of the effort, if any, that are proposed to be subcontracted and provide the same information for subcontractor organization and personnel.

1.2 Appropriate Market Sector Experience/Expertise

Provide information that emphasizes ESCO's experience and expertise in our specific market sector. Describe projects/experience of the team members being proposed for this project. Each applicable project listed shall indicate which team members were involved, and the capacity in which they were involved.

1.3 Project Personnel and Staffing

Identify each individual(s) who will have primary responsibility for the following tasks: technical analyses, engineering design, construction management, construction, training, post-construction measurement and verification, and other services. Include a table to identify and describe the individual(s) who will have primary responsibility for each task. Also include any added expertise and capability of staff available through other branch offices, subcontracts, etc., that you can provide.

- Column 1: Name and title. Indicate whether ESCO staff or subcontractor. If a subcontractor, indicate name of subcontractor firm. Indicate base location as: permanent office in Colorado, on assignment from other state, or out-of-state support.
- Column 2: Specify intended role and responsibilities for this contract and for possible EPC/implementation work, such as technical analysis, engineering design, construction management, construction, training, post-construction measurement and verification, support, or other services (specify).
- Column 3: Identify the estimated percentage of the individual's time that will be spent on this project.
- Column 4: Level of expertise, indicated by: number of years of relevant experience, and relevant supervisory responsibilities.

	Name Title Staff or subcontractor? Base location	Intended Role	Percentage of Time on Project	Level of expertise
1				
2				
3				
4				
5				
6				

Include resumes/historical information for each member of the proposed project team. Include a list of their relevant projects during the last five years including role, type of project, project cost, and any other information to support their skills/knowledge.

2. PROJECT APPROACH

The expectation is that there will be schematic and design development phases where client input and approvals will be required prior to construction document development. Additionally, the client will provide design build design intent specifications for the major mechanical, electrical, plumbing and technology improvements that may be looked at for energy savings. The requirements of these specifications will need to be incorporated into the design documents and final construction.

2.1 Design

Discuss your firm's design approach.

2.2 Product Selection

Discuss your firm's product specification procedures.

2.3 Construction

Discuss your firm's construction approach, including:

- Work plan development and coordination of identified client work requirements
- Communication with users and facilities personnel throughout process
- Methods of procedures submittals and approvals
- Support for client calendar and events
- Safety practices and procedures

2.4 Closeout

Discuss your firm's approach to the following critical closeout activities:

- Systems Commissioning

[Entity Name] RFP Energy Performance Contracting Services

- Owner Training
- Post-Implementation Report, which is a reconciliation of the EPC savings guarantee with any modifications during project implementation.
- Provision of Record Documents – i.e. As-Builts /Operation & Maintenance manuals

2.5 Measurement and Verification

Discuss your firm's approach to measurement and verification. Describe how your team works with clients to identify and report on energy savings and/or potential energy savings shortfalls.

2.6 Other

Discuss your firm's experience in other, supporting areas, such as:

- Staff Engagement
- Behavior Modification

3. COST AND PRICING

Note: In accordance to the Colorado Open Records Act, (CORA) C.R.S. § 24-72-201:206, it is advised that the issuer of this RFP share its procurement department's policy on what will/will not be subject to public inspection.

3.1 IGA Pricing

The CEO has standard pricing for IGAs, based on the location and square footage of the public sector commercial building to be audited. (See following table.)

Standard IGA Pricing Table				
Tiered Pricing (\$/sq ft)		Total Facility Square Footage		
		Under 250K	250 – 500K	500K +
Distance from CEO 1580 Logan, Denver	Under 75 miles	\$ 0.250	\$ 0.225	\$ 0.200
	75 – 150 miles	\$ 0.275	\$ 0.250	\$ 0.225
	Over 150 miles	\$ 0.300	\$ 0.275	\$ 0.250

All ESCO's submitting proposals will use CEO's IGA pricing structure in their proposals.

Audit pricing for other facilities will be discussed and negotiated only after Notice of Apparent Awardee is issued. Do not make any reference to this pricing in the proposal. *In the case where there are buildings and facilities outside of a typical scope of work (e.g. baseball fields, pools, street lighting, wastewater treatment, etc.), you should include information for these facilities in your RFP. The estimated additional costs for performing the IGA on these facilities should not be included in the ESCOs' proposal. Rather, this will be discussed and negotiated only after Notice of Apparent Awardee is issued.*

[Entity Name] RFP Energy Performance Contracting Services

3.2 Project Pricing

Please use Attachment B Cost and Pricing Tool to identify the percentages proposed for this specific project that are equal to or less than the maximum rates stated in your Base Contract with CEO, based on the size, scope and location of the specific project.

You will send out with this RFP the CEO's Cost and Pricing Tool as a separate Excel spreadsheet. That document is included in this Secondary ESCO Selection Toolkit, and also available on the CEO's Public EPC Program webpage. Consider asking ESCOs to submit a range of costs. ESCOs will complete the Project Estimate Worksheet tab and return the spreadsheet with their proposals.

3.3 Annual Costing

Provide estimated anticipated costs for Warranty, Measurement and Verification, and other pertinent categories below and how they are determined and applied to a project. Costs for the project shall not exceed the maximums established in the table below.

Determination of annual costs may be challenging without knowing project scope; therefore, elaborate on how annual pricing is determined.

Category of Annual Cost	Total Annual Cost	How Price is Determined	Years Applied (One-time, Annual, etc.)
Warranty			
Measurement and Verification			
Other:			

4. BEST VALUE

Briefly describe how the company's approach to performance contracting delivers best value for the investment. The responding company shall also describe any utility rebates or other financial incentives or grants it can potentially provide and/or facilitate.

[Entity Name] RFP Energy Performance Contracting Services

ATTACHMENT A: BUILDING AND FACILITY INFORMATION

For each building you wish to include in the IGA, list or provide in table format:

- *the building name,*
- *type of building (if not identified in the name),*
- *gross square feet,*
- *age (original and any renovations/additions)*
- *annual utility use (therm, kWh, kW, kgal, m³b, etc.) and costs*
- *known maintenance issues,*
- *current projects underway,*
- *if slated for replacement or change in use or occupancy, and*
- *funding mechanisms*

Additional information about known maintenance issues may be provided to attendees of pre-proposal meeting.

Attachment A includes a draft version of IGA Exhibit B Location of Audit, which is finalized as part of the IGA contract.

[Entity Name] RFP Energy Performance Contracting Services

ATTACHMENT B: CEO EPC COST AND PRICING TOOL

CEO's Cost and Pricing Tool, a Microsoft Excel workbook, is attached. Please read the **Overview and Instructions** and **Definitions** tabs before completing the spreadsheets. Return the completed workbook with your proposal.

Attach CEO's Cost and Pricing Tool, a Microsoft Excel spreadsheet, found in this Toolkit.



Revised 6-15-2016

Overview

This Excel workbook provides the Colorado EPC Program, its clients, and its pre-qualified ESCOs with standard investment grade audit pricing and ESCO project cost details. Certain information is required of pre-qualified ESCOs, and other information is leveraged at specific steps during EPC project development.

There are five tabs to this workbook:

- 1 Overview and Instructions
- 2 Definitions
- 3 Standard IGA Pricing Table
- 4 Project Estimate Worksheet
- 5 Cost Estimate Summary

Definitions

Please review information provided in the **Definitions** tab before proceeding to the remaining tabs.

Standard IGA Pricing Table

The Standard IGA Pricing Table provides a matrix to determine the cost of investment grade audit (IGA) services for publicly-owned commercial buildings, such as county courthouses, school buildings, administrative offices, jails and prisons, hospitals, libraries and other community facilities.

Consult the CEO's Secondary ESCO Selection Toolkit (available online on the CEO EPC Program webpage) for more information about IGA pricing for non-building facilities such as ball fields and exterior/street lighting.

Maximum Percentages Updated at Annual ESCO Base Contract Renewal

When an ESCO obtains pre-qualified status from the Colorado Energy Office, it executes a multi-year Base Contract for As-Needed Energy Performance Contracting Services (Base Contract). The Base Contract includes a copy of this Cost and Pricing Tool as an exhibit.

ESCO Base Contracts are subject to annual review and renewal during the multi-year contract cycle. If an ESCO is offered renewal, it has the opportunity to update the information provided in the exhibit for the upcoming contract year.

In the yellow cells of the **Project Estimate Worksheet** tab, below the Investment Grade Audit section, each ESCO identifies the maximum percentages it will charge any Colorado EPC Program client during the contract year. The CEO maintains those maximum percentages as confidential competitive information.

During a client's ESCO selection process, its CEO project consultant is engaged in the review of ESCO proposals and provides comments to the client's Selection Committee. During CEO project consultant reviews of ESCO proposals, they check each proposal's Cost and Pricing Tool **Project Estimate Worksheet** for two things:

- 1 Accuracy of the information provided in the Investment Grade Audit section; and
- 2 Comparison of percentages provided in the remaining yellow cells, against the maximum percentages on file with the ESCO Base Contracts. CEO project consultants inform their client whether or not each ESCO proposal is within their stated maximum percentages.

During Project Development

ESCOs provide their clients with a completed **Project Estimate Worksheet** and **Cost Estimate Summary** during EPC project development:

- > During ESCO Selection and IGA Contract Negotiation
- > As the EPC project proposal is developed and the EPC contract is negotiated.

Important note: Any individual category costs, whether ESCO-direct or purchased from contractors, vendors, material providers, etc., shall not include markups or profit. All ESCO profit shall be presented in Line 26 of the Project Estimate Worksheet.

During ESCO Selection and IGA Contract negotiation:

Open the **Project Estimate Worksheet** tab.

- 1 ESCOs enter information in the yellow cells only.
 - A In the IGA section, ESCOs reference the square footage of facilities identified in the RFP, as well as the **Standard IGA Pricing Table** tab in this workbook.
 - B In the remaining yellow cells, ESCOs quote project-specific percentages not to exceed percentages submitted to the CEO at annual Base Contract renewal.
- 2 ESCOs do not enter percentages for Trade Subcontracts, Design/Build Subcontracts, and Direct Purchase Equipment at this time, since these are actual costs that will be input during proposal development.

During EPC project proposal development and EPC contract negotiations:

Open the **Project Estimate Worksheet** and **Cost Estimate Summary** tabs.

- 1 ESCOs will reference the **Definitions** tab before completing the spreadsheets.
- 2 In both tabs, ESCOs will provide information in the blue cells.
 - A On the **Project Estimate Worksheet** tab, ESCOs enter IGA and Construction costs as actual costs.
 - B In the **Project Estimate Worksheet**, ESCOs enter Profit and Contingency as percentages of Estimated Project Amount.
 - C On the **Cost Estimate Summary**, ESCOs will note proper cost determination and expected length of service for all services.
- 3 Orange cells in the **Project Estimate Worksheet** calculate automatically.
- 4 ESCOs do not change the yellow cells in the **Project Estimate Worksheet**, so that CEO can confirm that IGA Contract Maximum % is not exceeded. If IGA Contract Maximum % is exceeded, orange cells turn red to indicate an error.

Definitions

PRE CONSTRUCTION COSTS

Pre-Construction Costs are all costs (except for costs contained in the IGA) which are required prior to commencing construction of all measures in the EPC.

Costs presented for ESCO-direct work shall not include profit. Profit for the project shall be identified in the profit line item of the **Project Estimate Worksheet**.

The Colorado EPC Program requires open book pricing. ESCOs should be prepared to present direct costs and quotes to their clients.

Design and Other Engineering

Design and other engineering includes all professional architectural and engineering costs required to design and specify projects to be installed as part of the Work. If design work is completed in-house, this includes unburdened labor associated with design of measures included in the EPC. If design work is subcontracted to an A&E firm, this is the quoted cost from the A&E firm plus unburdened labor from ESCO energy engineers to oversee and direct A&E design services. Design and other engineering services include applicable code review costs. Any non-billable time or non-engineering supervision of engineers associated with engineers and/or design efforts will be included in the Other Pre-Construction Costs category.

Energy engineering is all energy modeling, energy savings calculations and any additional energy engineering costs that were not accounted for in IGA costs. Costs include unburdened labor, any non-billable time for energy engineers, supervision of energy engineers or other support, training costs for energy engineers shall be included in the Other Pre-Construction Indirect Costs category.

Pre-Construction Services

Pre-construction services include both construction management as well as project development services.

In order to coordinate and bring many complex technical details together and present such proposal to the client, ESCO's may employ Business Development Representatives, Project Developers, and/or other resources that act as the key contact between the client and the ESCO. This line item includes all unburdened labor, commission, and any other direct cost associated with presenting the best information to the client in an understandable format.

As an additional level of coordination, ESCOs may utilize a construction manager prior to construction of projects to solicit bids for final construction and also help review designs to ensure constructability. This cost includes all unburdened construction manager costs associated with these efforts, if applicable.

Other Pre-Construction Costs

Site visits and client meetings are necessary before construction to ensure designs and equipment meet customer needs and fit project objectives. Other Pre-construction Costs may include but are not limited to: administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of project development staff.

CONSTRUCTION COSTS

For any components in this category that are directly purchased by the ESCO, such as from subcontractors, vendors, and material providers, to complete the Work, the costs presented shall not include any ESCO markups or profit. Costs presented for ESCO-direct work shall not include profit, as profit for the project shall be identified in the profit line item of the estimate summary. Profit for the project shall be identified in the profit line item of the estimate summary. ESCOs should be prepared to present direct costs and quotes to client through open book pricing.

Trade Subcontractors

Trade subcontractors are construction contractors that are mutually selected by the ESCO and Client, and subcontracted directly to the ESCO. These subcontractors are selected by the ESCO from bidding on specifications developed by the ESCO. Such subcontractors may include lighting contractors, sheet metal contractors, piping contractors, electricians, plumbers, carpenters, controls contractors, and other trade contractors as necessary to complete the Work.

Design-Build Subcontractors

Design-build subcontractors are construction and design contractors that are subcontracted directly to the ESCO, with Client approval and/or participation in the selection. Design-build subcontractors act as their own design agent and finalize the design of the Work Product to be installed. Such subcontractors include lighting contractors that complete their own audit and design; mechanical contractors that coordinate all of their own electrical, sheet metal work, piping and other support work; specialty contractors like pool cover vendors, and other specialty contractors necessary to complete the Work, are included in this category. The design-build subcontracts work is completed through the ESCO, with the ESCO approving all drawings specifications prior to construction, and with the ESCO taking responsibility for the performance of the design-build subcontractors.

Direct Purchase Equipment

Any equipment that is directly purchased by the ESCO is included in this category.

Construction Management

Construction Management includes the ESCO unburdened labor cost of a construction manager and site superintendent directly supporting the implementation effort required and to oversee and coordinate subcontractors on the project, as profit for the project shall be identified in the profit line item of the estimate summary.

Project Engineering

During construction, ESCO design engineers or contract A&E firm may make periodic inspections of work and support the construction manager with engineering analysis of required field modifications. This cost includes the unburdened cost of engineering labor or quoted subcontract A&E services to support the construction manager in this effort.

General Conditions

General Conditions may be required on larger and longer term projects. General conditions may cover miscellaneous non-staffing costs directly related to the project, such as; job trailer, trailer office equipment, temporary utilities, permanent utility connection fees, barriers/security fencing, scaffolding, equipment rental, site guards, cleaning and trash and recycling dumpsters. Again, costs for General Conditions shall not include markups of profit, as profit for the project shall be identified in the profit line item of the **Project Estimate Worksheet**.

Construction Completion

Commissioning

At the completion of the construction, the ESCO shall complete pre-functional and post-functional tests of all installed measures to ensure proper operation. This work is normally completed by commissioning agents. If this scope is completed by ESCO employees, it includes the unburdened cost of commissioning staff. If this scope is outsourced to a commissioning firm, this cost includes the turnkey cost to provide necessary commissioning services.

Construction M&V

At the completion of construction, the ESCO shall complete the measurement and verification of installed equipment to verify post-retrofit energy efficiency and operation. This effort is necessary to ensure systems will meet the guaranteed energy savings and start the M&V Services phase. If completed by ESCO staff, this cost shall include unburdened labor of Measurement & Verification Engineers. If completed by external M&V agency, this cost includes the turnkey cost to provide necessary measurement & verification services.

O&M Manuals

At the completion of projects, the ESCO is required to provide complete Operation and Maintenance Manuals to the client to allow for quick reference to written documents to provide sufficient maintenance to installed equipment. O&M manuals shall include necessary as-built architectural or engineering drawings. The cost to prepare most operations and maintenance raw materials should be included in relevant subcontractor costs above. This cost is to combine all subcontractor-provided material into single O&M Manuals; print, copy, bind and deliver both printed and electronic copies to the client.

Training

Training may be provided by subcontractors; if so, training costs will be included in their subcontractor bid. However, if the ESCO plans to provide training to the client, the unburdened labor cost for such training shall be included in this line item. In addition to labor, this line item may include formal classroom training, training videos, online training programs, and other training efforts that include labor and materials required to provide necessary training to the client. This line item cannot be a repeat of training provided directly by subcontractors in subcontractor costs. Training labor may be utilized to supervise and coordinate subcontractor training sessions with the client.

Other Construction Costs

Site visits and client meetings are necessary at the conclusion of construction to ensure the project has been completed properly before client signs final acceptance notification. Such items as administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of staff are all considered acceptable post-construction indirect costs. Other construction costs may include:

Permits

Construction is completed in various jurisdictions requiring compliance with jurisdictional codes. ESCO's must pay code reviewers to review design drawings; and render decisions on designs meeting code. In addition, the ESCO must apply for and receive any necessary construction permits based on designs and/or code review. These line items include all costs associated with paying code reviewers and application fees and inspections fees for such permits. This line item does not include design fees or engineering labor to work with code officials or submit permit applications. These unburdened labor fees shall be included in the engineering and/or construction management categories listed above.

Insurance

ESCOs may be required to possess various levels of Builder's Risk Insurance, Automobile Liability Insurance, Professional Liability Insurance, and other General Liability Umbrella policies. This line item shall include an average amount of insurance that would be attributed to this project. Worker's Comp Insurance is not included in this line item and shall be included in the appropriate unburdened labor cost categories.

Performance & Payment Bonds

All ESCOs are required to bond the performance and payment of all work by a reputable surety approved for such work. The cost of the performance and payment bond shall be included in this category for the anticipated amount of work to be completed without expending contingency funds. If and when contingency funds are expended, any increase in bond cost must be included with contingency cost expenditure proposals.

Warranty Labor

Warranty labor is the unburdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. All actual warranty replacement costs shall be included with the three line-items above and shall not be included in this line item.

IMPLEMENTATION COSTS SUBTOTAL

This is a subtotal of all the implementation cost expended by the ESCO to complete the Work for the client. No profit can be included in this subtotal for the ESCO or any close affiliate, parent, or subsidiary entity belonging to the ESCO. The client is entitled to audit or request as part of any pay application any and all costs included in any and all cost categories to ensure that all costs can be accounted for within standard Generally Acceptable Accounting Principles (GAAP).

PROFIT

The anticipated, but not guaranteed, gross profit associated with the project.

ESTIMATE PROJECT AMOUNT

The estimated project amount is the Pre-Construction, Construction, and Profit associated with the construction project.

CONTINGENCY

The project contingency is the asset of the Agency, and is held in escrow or encumbered, with the project total financed funding. As part of the project's overall budget, it is co-managed by the Agency and Contractor. The intended purpose of the project contingency is to provide funds for unforeseen elements of the scope of work, which may become known only after implementation of the scope of work has begun. The Contractor will identify any unforeseen scope of work items, as well cost impact for those unforeseen scope of work items, to the Agency for review and approval prior to any of the project contingency being spent. Contractor will maintain an on-going record of the project contingency throughout the project. If, once all of the contracted scope of work has been completed or is nearing completion and there are project contingency monies remaining the Contractor will work with the Agency to determine the best use of the remaining funds. One option is for the Agency to consider additional energy conservation or capital improvement measures for implementation utilizing the remaining contingency dollars. Contractor and Agency will work together to review the potential added measures with the finance company to assure that the potential added measures are acceptable to the finance company.

TOTAL FUNDED AMOUNT

The Total Funded Amount includes all costs associated with the EPC including IGA Costs, Estimated Project Amount, and the Contingency.

ANNUAL COST CATEGORIES *found in the Cost Estimate Summary tab*

Warranty

Warranty is the unburdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. This warranty cost may also include costs for extended equipment warranties in those cases where the required/specify equipment warranty is longer than the equipment warranty offered by the manufacturer.

Measurement and Verification

The Measurement and Verification Services cost is the unburdened cost for the services necessary after acceptance of the project to annually verify the Energy Performance Contract guarantees. The State requires a guarantee of Utility Cost Savings for a minimum of three years. The cost for measuring and verifying the guarantee is based upon the M&V option utilized, the risk of savings failure, the field time to measure building performance, and the time to document and present the report.

Other

ESCOs will describe on the **Cost Estimate Summary** tab the significance of Other.

Standard Investment Grade Audit Pricing Table

The matrix below determines the cost of investment grade audit (IGA) services for publicly-owned commercial buildings, such as county courthouses, school buildings, administrative offices, jails and prisons, hospitals, libraries and other community facilities.

Consult the CEO's Secondary ESCO Selection Toolkit (available online) for more information about IGA pricing for non-building facilities such as ball fields and exterior/street lighting.

Tiered Pricing Table (\$/Square Foot)		Total Project Size (Sq Ft)		
		Under 250K Sq Ft	250K-500K Sq Ft	Over 500K Sq Ft
Distance from CEO (1580 Logan St, Denver)	Under 75 miles	\$ 0.250	\$ 0.225	\$ 0.200
	75-150 Miles	\$ 0.275	\$ 0.250	\$ 0.225
	Over 150 Miles	\$ 0.300	\$ 0.275	\$ 0.250

Project Estimate Worksheet

A	B	C	D	E	F	G
		Project Costing Categories	IGA Contract Maximum % of Total Project Cost	Actual Final IGA Calculated % of Total Project Cost	Actual Final IGA Cost	Sub-Totals
1		Investment Grade Audit (IGA)				
2		Total Facility Area				
3		\$ / Sq Ft				
4		Investment Grade Audit Total Cost				\$ -
5						
6		Implementation Costs				
7		Pre-Construction Costs*				
8		Design and Other Engineering		0.00%		
9		Pre-Construction Services		0.00%		
10		Other Pre-Construction Costs		0.00%		
11		Pre-Construction Cost Subtotal		0.00%		\$ -
12		Construction Costs*				
13		Trade Subcontracts		0.00%		
14		Design/Build Subcontracts		0.00%		
15		Direct Purchase Equipment		0.00%		
16		Construction Management		0.00%		
17		Project Engineering		0.00%		
18		General Conditions		0.00%		
19		Construction Completion		0.00%		
20		Other Construction Costs		0.00%		
21		Construction Cost Subtotal		0.00%		\$ -
22		Implementation Costs Subtotal*				
23						
24		Profit*				
25						
26		Estimated Project Amount*				

27					
28	Contingency*				
29					
30	Total Funded Amount*				

*Please reference the **Definitions** tab for each term's definition.

H	I
Totals	Notes
	Unique for each project
	See Standard IGA Pricing Table tab.
	$G4 = F2 * F3$
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	$G11 = \text{sum} (F8:F10)$
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	% in column E is calculated from estimated project amount
	$G21 = \text{SUM}(F13:F20)$
\$ -	$H22 = \text{SUM}(G11+G21)$
\$ -	Value in column H is calculated from estimated project amount
\$ -	$H26 = \text{SUM}(H22 + H24)$

\$	-	Value in column H is calculated from estimated project amount
\$	-	H30 = SUM(G4+H26+H28)

Cost Estimate Summary

Below are two tables. The first transfers over subtotals and totals generated from the information detailed in the **Project Estimate Worksheet**. In the second table, ESCOs identify any annual costs included in a project proposal, for later incorporation into an energy performance contract.

FINAL PROJECT PROPOSAL COST ESTIMATE SUMMARY		
Category	%	Costs
Investment Grade Audit		\$ -
Implementation Costs		
Pre-Construction Costs	0.00%	\$ -
Construction Costs	0.00%	\$ -
Implementation Cost Total		\$ -
Profit	0.00%	\$ -
Estimated Project Amount		\$ -
Contingency	0.00%	\$ -
Total Funded Amount		\$ -

ANNUAL COSTS			
Category	Total Annual Cost	How Price is Determined	Years Applied (One-time, Annual, etc.)
Warranty*			
Measurement and Verification*			
Other*			

* Please refer to the **Definitions** tab for more information.



SECONDARY ESCO SELECTION TOOLKIT

Potential Interview Questions

REVISED JUNE 2016

Competitive selection processes often include interviews of select candidates. CEO offers the following list to Client Selection Committees to elicit discussion and make decisions about what questions the Selection Committee will ask during those interviews.

1. FIRM'S GENERAL APPROACH TO ENERGY PERFORMANCE CONTRACTING

GENERAL: In five minutes, please describe your firm's approach to energy performance contracting and how your services and approach might meet our needs.

GENERAL: Why should we select you? (This is a good, final, open-ended question.)

2. QUALIFICATIONS OF THE FIRM OR TEAM

LOCATION OF NEAREST OFFICE: Where is the nearest support/service office for your firm? How long has your organization been operating in the area?

CHANGES IN OWNERSHIP AND BUSINESS STABILITY: Has the company been bought or sold over that last year, five years, ten years, etc.? What are future projections for the company?

CORPORATE AFFILIATIONS: Explain the affiliation of your company to a larger company, subsidiary, independent arm of utility company, etc.

3. PROJECT HISTORY

RELEVANT PROJECTS: Describe the energy performance contract that you completed that is most similar to this project (size, scope, type of facilities, location)

4. PERFORMANCE CONTRACTING CAPABILITY & TECHNICAL APPROACH

AUDIT: How do you go about conducting an audit? Who will you want to engage with here during the audit to ensure we get the project that best fits our needs? How involved or detailed is it? Who is completing the audits? Explain your firm's creativity in developing a list of energy efficiency recommendations. Are renewable or alternative energy solutions and/or water efficiency solutions considered and evaluated?

MEASUREMENT & VERIFICATION: What is involved in measurement & verification? How are energy rates assigned to energy savings? I.e. how are energy rates escalated over time? How are the various components of an energy rate determined and applied to the calculated or actual usage? How does measurement & verification relate to the guarantee? Describe how M&V fits within your projects. Describe how your M&V team fits within your organization and how it would fit in your project team. What process do you go through to ensure the proper M&V option is used? Do you provide any occupant engagement or continuous monitoring options? How often are you on site during the M&V period? What is the process you use to do inspections, develop and review reports? Can we meet the team that will be doing the M&V work? Can you provide a sample M&V report?

TRAINING: What amount of training is provided for building operators and staff? What form of training will be provided (classroom, on-site, computer, etc.)? Can training be recorded for future employees? Who will conduct the training, and where will it be conducted? How frequently will training be offered? Is there an additional cost?

FINANCING AND FUNDING: Describe your firm's preferred approach to project financing. What support can you provide in our identifying how to fund a project resulting from the audit? What is your approach to securing rebates and grants? Do you know of any rebates and/or grants that could potentially support our project? What has been your success in securing rebates and/or grants for other projects, specifically projects that are similar to ours?

CONTRACTS: What are key provisions and flexibility of the Colorado EPC Program's standard legal agreements/contracts?

SCHEDULE: Can you meet the proposed project deadlines? What is the current work load of your staff identified to work on this project? How well has the company done on completing past projects on schedule, including both development and construction?

ONSITE WORK DURING CONSTRUCTION: How does your firm work with building occupants to ensure they can perform their functions while you meet your construction schedule? We have included in the RFP references to known information regarding known asbestos and other hazardous materials issues; how does your firm work with this knowledge?

POST-PROJECT SUPPORT: What type of post-implementation support does your company usually provide once a guarantee begins? Do you provide local or remote support? How are post-implementation support fees included into the overall project cost?

MAINTENANCE AGREEMENT: Do you offer a maintenance agreement? Is it required? How does it relate to the guarantee? What site specific operational and maintenance changes does your firm usually propose for similar projects?

PROBLEMS/SOLUTIONS: What problems have you had in other energy performance contracting projects? And, how did you resolve these problems? What process do you propose for resolving issues and problems throughout this process? How will you accommodate site inspectors and their findings?

5. MANAGEMENT AND STAFFING FOR THIS PROJECT

ROLES: Describe the roles that each of you play here today. Describe your professional backgrounds and expertise.

PROJECT TEAM: Who will be on our project team? Who will be our main point of contact? Is there a key point person involved throughout the process or are there different people we will be contacting for each process (processes include audit, contract negotiations, installation, monitoring)? If so, who can we expect lead the various stages of our project? Describe the transition from one person to another and how you maintain continuity.

SUBCONTRACTORS: How do you select subcontractors? How willing are you to work with us in selecting subcontractors?

CAPABILITY OF LOCAL OFFICE: What staff and operations do you offer from your local office? What staff and operations do you offer from your remote offices?

COMMUNICATION: Describe the communication channels that will exist during the project.

6. COST AND PRICING

COST: Describe your approach to ensuring we get good value at a reasonable cost. Describe your approach to ensuring we get good value at a reasonable cost for this project? How will costs be reported for this project? Describe your process for project invoicing. What is your process for reviewing subcontractor bids with us?

REVISED JUNE 2016

CEO offers the following **ESCO Proposal Scoring Sheet** as a tool to assess responses to the Client's solicitation.

The Client's Selection Committee should discuss and agree upon the weighting factors assigned to each scoring category before reviewing proposals. The weighting factor scale ranges from 0 to 5, with 0 of no importance and 5 being the most important.

Distribute the *ESCO Proposal Scoring Sheet* in its original Excel format, along with *ESCO proposals*, to each member of the Selection Committee, with the instructions to complete one scoring sheet for each proposal received. As Selection Committee members enter their score for each category, subscores in the yellow cells are automatically calculated, and the total score is updated.

Total Score = 0	
ESCO Name:	
Evaluator:	
Proposal Subsection	Comments
SECTION 1: MANAGEMENT APPROACH	
Project Management and Coordination	
Weighting Factor (0-5)	
Score: (0 - 5)	
Subscore (Weighed Factor x Score)	0
Appropriate Market Sector Experience/Expertise	
Weighting Factor (0-5)	
Score: (0 - 5)	
Subscore (Weighed Factor x Score)	0
Project Personnel and Staffing	
Qualifications and Experience of Personnel:	
Technical Analysis (audit)	
Weighting Factor (0-5)	
Score: (0 - 5)	
Subscore (Weighed Factor x Score)	0
Project Personnel and Staffing	
Qualifications and Experience of Personnel:	
Engineering Design	
Weighting Factor (0-5)	
Score: (0 - 5)	
Subscore (Weighed Factor x Score)	0
Project Personnel and Staffing	

ESCO Name:		
Evaluator:		
Proposal Subsection	Comments	
Qualifications and Experience of Personnel:		
Construction		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Project Personnel and Staffing		
Qualifications and Experience of Personnel:		
Training		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Project Personnel and Staffing		
Qualifications and Experience of Personnel:		
Measurement and Verification		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Project Personnel and Staffing		
Qualifications and Experience of Personnel:		
Post Construction Support		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Project Personnel and Staffing		
Added Qualifications and Experience		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
SECTION 2: PROJECT APPROACH		
Design		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Product Selection		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	

ESCO Name:		
Evaluator:		
Proposal Subsection	Comments	
Construction		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Closeout		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Measurement and Verification		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Other		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
SECTION 3: COST AND PRICING		
IGA Pricing		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Project Pricing		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
Annual Costing		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	
SECTION 4: BEST VALUE		
Best Value		
Weighting Factor (0-5)		
Score: (0 - 5)		
<i>Subscore (Weighed Factor x Score)</i>	0	