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| **ENERGY SAVINGS PERFORMANCE CONTRACT WITH ESA** **RISK, RESPONSIBILITY AND PERFORMANCE MATRIX** |
| **RESPONSIBILITY/DESCRIPTION** | **CONTRACTOR PROPOSED APPROACH** |
| **1. Financial** |  |
| **a. Interest rates**: Neither the contractor nor the agency has significant control over prevailing interest rates. Higher interest rates will increase project cost, financing/project term, or both. The timing of the TO signing may impact the available interest rate and project cost. |  |
| **b. Construction costs:** The contractor is responsible for determining construction costs and defining a budget. In a fixed-price design/build contract, the agency assumes little responsibility for cost overruns. However, if construction estimates are significantly greater than originally assumed, the contractor may find that the project or measure is no longer viable and drop it before TO award. In any design/build contract, the agency loses some design control. **Clarify design standards and the design approval process (including changes) and how costs will be reviewed.** |  |
| **c. M&V confidence:** The agency assumes the responsibility to determine the confidence that it desires to have in the M&V program and energy savings determinations. The desired confidence will be reflected in the resources required for the M&V program, and the ESCO must consider the requirement prior to submittal of the final proposal. **Clarify how project savings are being verified (e.g., equipment performance, operational factors, energy use) and the impact on M&V costs.** |  |
| **d. Energy Related Cost Savings:** The agency and the contractor may agree that the project will include savings from *recurring* and/or *one-time* costs. This may include one-time savings from avoided expenditures for projects that were appropriated but will no longer be necessary. Including one-time cost savings before the money has been appropriated may involve some risk to the agency. Recurring savings generally result from reduced O&M expenses or reduced water consumption. These O&M and water savings must be based on actual spending reductions. **Clarify sources of nonenergy cost savings and how they will be verified.** Note: Energy Related Cost Savings are typically not applicable to a PV ESA ECM. |  |
| **e. Delays:** Both the contractor and the agency can cause delays. Failure to implement a viable project in a timely manner costs the agency in the form of lost savings, and can add cost to the project (e.g., construction interest, re-mobilization). **Clarify schedule and how delays will be handled.** |  |
| **f. Major changes in facility:** The agency (or Congress) controls major changes in facility use, including closure. **Clarify responsibilities in the event of a premature facility closure, loss of funding, or other major change.** |  |
| **2. Operational** |  |
| **a. Operating hours:** The agency generally has control over operating hours. Increases and decreases in operating hours can show up as increases or decreases in “savings” depending on the M&V method (e.g., operating hours multiplied by improved efficiency of equipment vs. whole-building/utility bill analysis). **Clarify whether operating hours are to be measured or stipulated and what the impact will be if they change.** If the operating hours are stipulated, the baseline should be carefully documented and agreed to by both parties. |  |
| **b. Load:** Equipment loads can change over time. The agency generally has control over hours of operation, conditioned floor area, intensity of use (e.g., changes in occupancy or level of automation). Changes in load can show up as increases or decreases in “savings” depending on the M&V method. **Clarify whether equipment loads are to be measured or stipulated and what the impact will be if they change**. If the equipment loads are stipulated, the baseline should be carefully documented and agreed to by both parties. |  |
| **c. Weather:** A number of energy efficiency measures are affected by weather. Neither the contractor nor the agency has control over the weather. Should the agency agree to accept risk for weather fluctuations, it shall be contingent upon aggregate payments not exceeding aggregate savings. The agency and ESCO may consider normalizing the Actual Annual Production from the PV ESC ECM based on solar insolation. Clearly **specify how weather corrections will be performed.** |  |
| **d. User participation:**  Many energy conservation measures require user participation to generate savings (e.g., control settings). The savings can be variable and the contractor may be unwilling to invest in these measures. **Clarify what degree of user participation is needed and utilize monitoring and training to mitigate risk.** If performance is stipulated, document and review assumptions carefully and consider M&V to confirm the capacity to save (e.g., confirm that the controls are functioning properly). |  |
| **3. Performance** |  |
| **a. Equipment performance:** The contractor has control over the selection of equipment and is responsible for its proper installation, commissioning, and performance. The contractor has responsibility to demonstrate that the new improvements meet expected performance levels including specified equipment capacity, standards of service, and efficiency. **Clarify who is responsible for initial and long-term performance, how it will be verified, and what will be done if performance does not meet expectations.**Note: For PV ESA ECM the Contractor is responsible for initial and long-term performance throughout the term of the ESA. |  |
| **b. Operations:** Performance of the day-to-day operations activities is negotiable and can impact performance. However, the contractor bears the ultimate risk regardless of which party performs the activity. **Clarify which party will perform equipment operations, the implications of equipment control, how changes in operating procedures will be handled, and how proper operations will be assured.** Note: For PV ESA ECM the contractor is responsible for equipment operation throughout the term of the ESA. |  |
| **c. Preventive Maintenance:** Performance of day-to-day maintenance activities is negotiable and can impact performance. However, the contractor bears the ultimate risk regardless of which party performs the activity. **Clarify how long-term preventive maintenance will be assured, especially if the party responsible for long-term performance is not responsible for maintenance (e.g., contractor provides maintenance checklist and reporting frequency).**  **Clarify who is responsible for performing long-term preventive maintenance to maintain operational performance throughout the contract term.** **Clarify what will be done if inadequate preventive maintenance impacts performance.** Note: For PV ESA ECM the contractor is responsible for performing long-term preventive maintenance to maintain operational performance throughout the term of the ESA. |  |
| **d. Equipment Repair and Replacement:** Performance of day-to-day repair and replacement of contractor-installed equipment is negotiable, however it is often tied to project performance. The contractor bears the ultimate risk regardless of which party performs the activity. **Clarify who is responsible for performing replacement of failed components or equipment replacement throughout the term of the contract.** Specifically address potential impacts on performance due to equipment failure. Specify expected equipment life and warranties for all installed equipment. Discuss replacement responsibility when equipment life is shorter than the term of the contract. Note: For PV ESA ECM the contractor is responsible for equipment repair and replacement throughout the term of the ESA. |  |

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