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U.S. Government Plans to Leverage P3s to Make Federal Buildings More Energy Efficient

WRITTEN BY

MK Houston | Robert A. Gallagher | Alexander Z. Bulkin

Introduction

As the nation's largest energy consumer, the U.S. federal government plans to curb greenhouse gas emissions across its expansive portfolio of more than 350,000 federal buildings.[1] In a pioneering move, the Biden administration and Department of Energy (DOE) recently announced the Climate Smart Buildings Initiative (CSBI).[2] This bold initiative aims to upgrade federal buildings across the U.S. with emerging and sustainable technologies in an effort to meet the Biden administration's Federal Building Performance Standard, which sets an ambitious goal to cut energy use and electrify equipment and appliances in 30%of the building space owned by the federal government by 2030.[3]

The CSBI represents more than just a technology initiative; it represents a comprehensive strategy that employs public-private partnerships (P3s) to achieve its objectives. Central to this approach are two contracting models: Energy Savings Performance Contracts (ESPCs) and Utility Energy Services Contracts (UESCs). In this article, we delve deeper into the CSBI, illustrating how this ambitious initiative will facilitate an increase in P3s.

Climate Smart Buildings Initiative

The CSBI, announced on August 3, 2022, aims to leverage P3s to modernize federal buildings and cut greenhouse gas emissions. Through this initiative, the government will dramatically expand its partnership with the private sector to upgrade existing federal buildings — paying for today's needed renovations with tomorrow's energy savings without requiring upfront taxpayer funding.

By setting and meeting emissions reduction targets for buildings, the CSBI is expected to catalyze more than $8 billion of private sector investment by 2030 to modernize facilities through ESPCs and UESCs.[4] The initiative is expected to achieve up to 2.8 million metric tons of greenhouse gas reductions annually by 2030, which is the equivalent of removing 600,000 gas-powered cars from the road.[5] Further, the CSBI is expected to increase investments from performance contracts from a low of $251 million in fiscal year (FY) 2021, to a sustained $1.2 billion per year by 2030, a fivefold increase. [6]

The CSBI includes:

- **Establishing agency emission reduction targets delivered through performance contracting**. The Biden administration will provide sustained leadership between today and 2030 to support federal agencies to set,

track, and deliver on targets for cutting building emissions. [7]

- **Leveraging $250 million in funding from the Infrastructure Investment and Jobs Act (IIJA).** The DOE's Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) program will provide additional funding to promote innovative decarbonization strategies through performance contracting. [8]

- **Leveraging $975 million in funding from the Inflation Reduction Act (IRA).** On June 20, the U.S. General Services Administration (GSA) announced plans to contribute to the CSBI by allocating $975 million in IRA funding to upgrade federal buildings across the U.S. with emerging and sustainable technologies.[9]

Energy Savings Performance Contracts: A Win-Win Partnership Model

To further enhance the energy efficiency of federal buildings, ESPCs offer an innovative and mutually beneficial partnership model. ESPCs allow federal agencies to implement energy efficiency upgrades without upfront capital costs, paving the way for significant energy savings and sustainability improvements.

Under ESPCs, federal agencies enter into contracts with Energy Service Companies (ESCOs) that provide the necessary expertise, financing, and technical know-how.[10] The procurement process begins with the agency accepting initial proposals and qualifications from multiple ESCOs; then, once the agency chooses one proposal, the chosen ESCO conducts a comprehensive energy audit and identifies improvements that will save energy at the facility.[11] Central to the ESPC framework is the ESCO's commitment to achieving "life cycle cost-effectiveness," that is, that the benefits derived from the energy improvements meet or exceed total costs over the life of the contract.[12]

Notably, the agency incurs minimal to no upfront expenses, as the ESCO designs and constructs a project that meets the agency's needs and arranges financing to pay for it. The ESCO guarantees that the improvements will generate savings sufficient to pay for the project over the term of the contract, with contract terms of up to 25 years. Thereafter, the agency conducts an annual energy audit, and annual payments to the ESCO are made from the realized savings generated from the energy-saving measures. After the contract ends, all additional cost savings accrue to the agency.[13]

ESPCs offer numerous advantages to federal agencies and taxpayers. By leveraging private sector investments, federal agencies can implement energy efficiency upgrades without the need for upfront capital costs. This not only relieves budgetary constraints but also allows agencies to allocate resources to other important priorities. Furthermore, ESPCs stimulate job creation in the renewable energy and energy efficiency sectors, contributing to economic growth and supporting local communities. By investing in energy-saving measures and modernizing federal buildings, ESPCs not only reduce greenhouse gas emissions but also improve the overall environmental performance of these buildings.

Utility Energy Services Contracts: Collaborating with Utilities for Energy Efficiency

In addition to ESPCs, federal agencies have another avenue for implementing energy efficiency improvements in their buildings: UESCs. UESCs involve partnerships between federal agencies and utility service providers to

design and implement energy conservation measures.[14] These measures can range from lighting retrofits to the integration of renewable energy systems. As opposed to ESPCs, which are competitively procured, it is common for federal agencies to justify sole source procurements for UESCs when there is one serving utility.[15] As a result of this streamlined procurement process, UESCs may be executed faster and with less regulatory burden.

In a UESC arrangement, the utility company, leveraging its resources and technical expertise, first performs a comprehensive analysis of a proposed energy efficiency project.[16] This analysis aims to quantify the potential energy and financial savings the federal agency stands to gain. In doing so, the utility company provides a projected benchmark for the lifetime cost-effectiveness of the project. However, unlike ESPCs, a UESC arrangement does not require the utility company to guarantee savings.[17]

A key attribute of a UESC is the utility company's commitment to absorb most, if not all, of the initial costs of the project. This allows federal agencies to initiate energy efficiency projects without incurring significant upfront costs. In addition, the utility company formulates a financing plan which enables the federal agency to repay the project costs over time, using appropriated funds, the savings accrued from reduced utility bills, or a combination of the two.[18] Upon implementation of the energy efficiency project, the federal agency is obligated to repay the utility company in line with the financing plan. Because repayment is achieved through the money saved on utility bills, the UESC is essentially budget-neutral.

UESCs offer several benefits to federal agencies, including simplified procurement processes, upfront private sector financing, and energy savings, By partnering with utility providers, agencies can tap into their knowledge and experience, ensuring effective and successful implementation of energy conservation measures.

How Agencies Are Taking the Lead to Leverage P3s

Federal agencies have a demonstrated history of leveraging P3s to make energy efficiency upgrades as demonstrated by the examples below. With more than $1 billion in additional funding, federal agencies are positioned to continue to lead by example in mitigating climate change, achieving environmental goals, and building more resilient infrastructure.

Recent P3s Include:

- **UESC to improve federal buildings across Georgia**. In August 2022, GSA announced an $117 million utility energy service contract that improves energy efficiency and reduces emissions from 12 federal buildings across Georgia. The contract is expected to reduce costs by $3.3 million annually, bring more than 500 good-paying new jobs to Georgia, and prevent more than 18,600 metric tons of carbon pollution each year, which is equal to removing 4,000 gas-powered cars from the road.[19]

- **ESPC to replace infrastructure at IRS Service Center in New York.** In 2022, the Department of Treasury completed an ESPC to replace critical infrastructure at its IRS Service Center in New York. The $14 million, 17-year contract will provide efficiency upgrades that will reduce electricity consumption by 60%, cut water consumption by 25%, reduce annual energy and water costs by $2.2 million, and eliminate 8,300 metric tons of annual GHG emissions.[20]

- **ESPC to modernize six federal buildings in Washington, D.C.** In 2021, GSA awarded an ESPC to modernize six landmark federal buildings in Washington, D.C. The project, which leveraged $91 million in investment from industry, will reduce energy consumption by 42%, reduce water consumption by 50%, create more than 100 jobs, and cut 20,000 metric tons of annual GHG emissions. [21]

- **ESPC to replace a steam plant at Parris Island.** In 2019, the Department of Defense's U.S. Marine Corps Recruit Depot Parris Island completed an ESPC to replace an outdated central steam plant and modernize power generation. Encompassing more than 120 buildings, the project reduced energy use by 75%, reduced water use by 25%, eliminated 40,000 metric tons of annual GHG emissions, and reduced annual energy costs by $6 million. [22]

Conclusion

The CSBI represents an ambitious yet achievable roadmap toward a more sustainable future for our federal buildings. Through strategic partnerships with the private sector, leveraging innovative financing models like ESPCs and UESCs, and the injection of funding from the IIJA and IRA, the initiative is poised to significantly reduce greenhouse gas emissions while creating financial and environmental returns on investments.

At Troutman Pepper, our commitment to handling ESPCs, UESCs, and P3s is supported by our diverse team of experienced experts, who are ready to provide clear guidance tailored to each unique project. As federal agencies look to issue RFPs for federal building improvements, our team stays focused on offering advice and support, helping clients make the most of federal contracting opportunities.

For more information regarding the IIJA, check out "Federal Infrastructure Bill Paves the Way Toward More Transportation Infrastructure Public-Private Partnerships" and "The Infrastructure Investment and Jobs Act: A Pivotal Moment for Water Public-Private Partnerships in the United States."

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