

FEDERAL REAL PROPERTY ASSOCIATION

Event Summary: Smart Building Technology Panel featuring GSA and DOE

February 26, 2019 – Holland & Knight, Washington, D.C.

The Federal Real Property Association (FRPA) hosted a panel discussion with officials from the General Services Administration (GSA) and the Department of Energy (DOE) on smart building technology on February 26, 2019 at the offices of Holland and Knight. With more than 350,000 energy-utilizing buildings, the Federal government is the nation's

largest energy consumer. The panel focused on how both GSA and DOE are working with Federal agencies to identify and implement emerging technologies to improve operational performance and to meet energy-related cost reduction goals.

Panelists included Chip Pierpont (Director of Facilities Operations and Technologies, GSA), Kevin Powell (Director, GSA Proving Ground), Mark Ewing (Director of Energy Management, GSA), and Karma Sawyer (Building Energy Research and Development Program Manager, DOE). The session was moderated by Andrew Heller, (Assistant Commissioner for Facilities Management, GSA). Key topics included the following:

Use of Emerging Technologies in the Federal Portfolio

Most heating and cooling systems within the Federal portfolio are archaic by today's modern standards, but recent advances in building technology reflect great potential to transform how the government operates and maintains Federal buildings. Within GSA, the agency has undertaken an "Operational Excellence" program to implement emerging technologies more quickly. As part of this commitment, GSA and DOE also have issued joint Requests for Information to identify next-generation building technologies that have the potential to improve the operational efficiency of federal and commercial buildings and provide a solid return on investment. While there are significant opportunities to improve performance and reduce cost with new building technology, there are some challenges to implementing these technologies more broadly, including upfront costs, perceived first adopter risk, and the complexity of retrofitting existing buildings.

Opportunities for Cost Savings

The panelists described how the Federal government has deployed 13 new technologies in nearly 500 facilities, producing more than \$7M in annual savings and resulting in more than \$100M in life cycle cost savings. GSA believes that this initial savings is about 10 percent of the full potential economic benefit if the government could implement comprehensive deployment of smart building technology. The use of Energy Savings Performance Contracts (ESPC) is among several approaches the Government has used to invest in smart building technology. To date, the Government has awarded more than \$570 M in projects through this approach.



From left: Andrew Heller, Chip Pierpont, Mark Ewing, Kevin Powell, and Karma Sawyer

SPEAKER SPOTLIGHT

Andrew Heller (Moderator) is the Assistant Commissioner for the Office of Facilities Management (OFM) at GSA's Public Buildings Service (PBS). As the Assistant Commissioner, he is responsible for providing facilities related solutions and services to Federal tenants located in over 8,500 owned and leased workspaces across the nation. OFM's mission is to provide safe, reliable and cost-effective workspace environments that support the mission needs of GSA's customer agencies.

Mark Ewing is the Director of GSA's Energy Division within the OFM and is responsible for managing GSA's building inventory toward annual energy reduction targets, fulfilling GSA's external responsibilities to procure regulated utility services on-behalf of the Federal government and implementing advanced metering technology where cost effective.

Chip Pierpont manages the development and execution of requirements/solutions for building operations and technologies for GSA and its customer agencies. GSA's portfolio includes more than 9,500 buildings (owned and leased) totaling more than 375M SF. These efforts include GSAlink, N-CMMS, and O&M/custodial related tools.

Kevin M. Powell is the Director of Emerging Building Technologies for GSA PBS, and program director for the GSA Proving Ground (GPG). Mr. Powell focuses on identifying innovative technologies, practices and process that optimize how PBS designs, delivers and operates Federal buildings.

Dr. Karma Sawyer is the Program Manager for the Emerging Technologies (ET) program with the Department of Energy's Building Technologies Office (BTO). Dr. Sawyer oversees a diverse portfolio of research and development (R&D) program areas, with the goal of developing cost-effective, energy-efficient high-impact building technologies.

Improving the Tenant Experience

Panelists discussed how the use of smart building technology also enhances the overall tenant experience. GSA described their current efforts to rationalize their computerized maintenance and management software (CMMS) systems. Back in 2012, GSA had eleven disparate Computerized Maintenance and Management Software (CMMS) systems that were not connected to one another, which made it difficult to establish an enterprise-wide approach to manage the GSA inventory. By October 2016, GSA went live with a single CMMS, which now allows for the Agency to collect data on all its assets, manage preventive maintenance more effectively, and to solicit tenant feedback on individual work orders. The Agency also described its efforts to create tenant specific dashboards that provide timely, accurate, and reliable information on key aspects of facilities management.