



# FY 2019 Annual Energy Management Report

The U.S. Environmental Protection Agency (EPA) strives to demonstrate its mission to protect human health and the environment by reducing energy, water, emissions and waste at its facilities. In order to meet or exceed the requirements of the Energy Independence and Security Act of 2007 (EISA), the Energy Policy Act of 2005 (EPAAct) and Executive Order 13834, the EPA prioritized three strategies in fiscal year (FY) 2019: consolidation, master planning and performance contracting.

Like many other federal agencies, the EPA has limited capital funds to maintain existing laboratory infrastructure. To reconfigure existing research laboratory space to meet mission-critical needs and to maximize building occupancy, the EPA closed its Region 8 Laboratory in Golden, Colorado, in December 2018. The EPA also continued to work on master plans for its Region 2 Laboratory in Edison, New Jersey, and the Andrew W. Breidenbach Environmental Research Center in Cincinnati, Ohio.

Work under an energy savings performance contract (ESPC) at the EPA's Main Building in Research Triangle Park (RTP), North Carolina, began in FY 2019 with lighting upgrades and high temperature hot water piping replacement. The contract's energy service company has committed to complete the

construction phase of the RTP ESPC by the end of FY 2020. In addition to progressing on the RTP ESPC in FY 2019, the EPA began revisiting an ESPC at its National Vehicle Fuel Emissions Laboratory in Ann Arbor, Michigan, that was initiated in 1998 and expires in 2022.

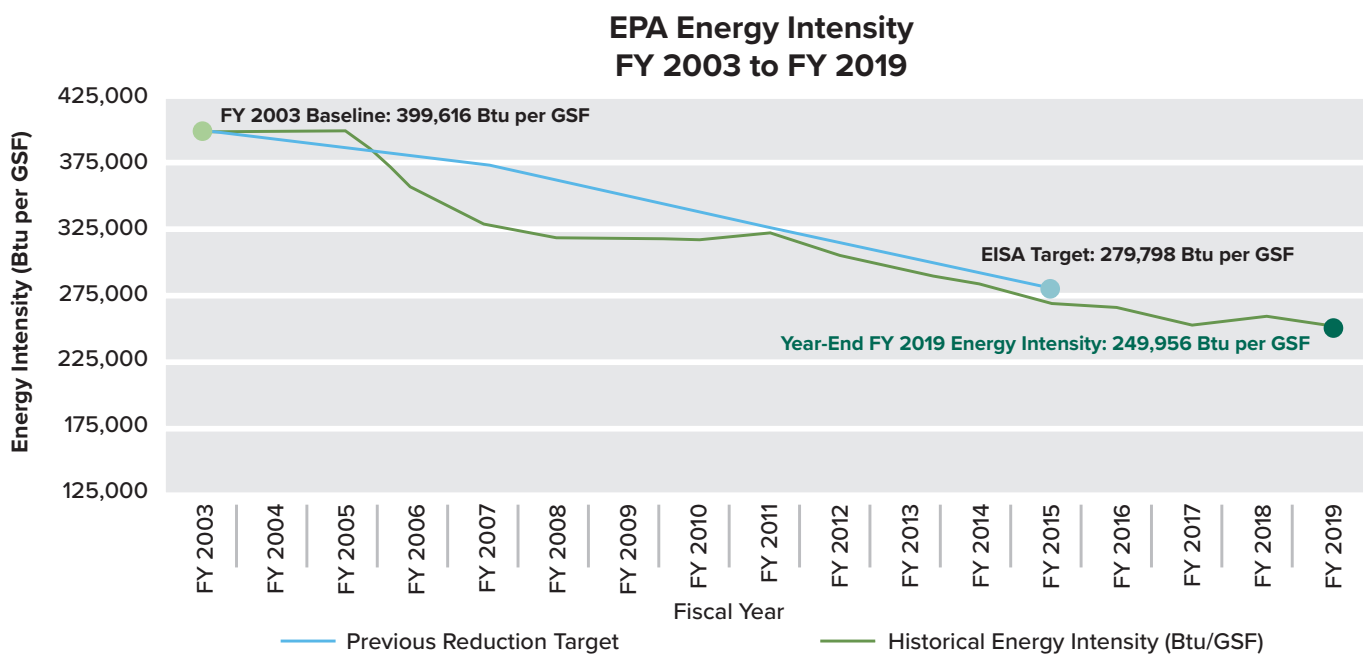
## Energy Efficiency

The EPA's FY 2019 reported energy intensity was 249,956 British thermal units (Btu) per gross square foot (GSF), which is 3.9 percent lower than its FY 2018 reported energy intensity of 260,186 Btu per GSF (see Figure 1). The EPA's FY 2019 energy intensity was 37.5 percent lower than FY 2003's 399,616 Btu per GSF. In absolute terms, the EPA's FY 2019 energy consumption was 888.6 billion Btu.

**In FY 2019, EPA's energy intensity performance was:**

- **3.9 percent lower than FY 2018**
- **37.5 percent lower than the FY 2003 baseline**

**Figure 1. The EPA's Annual Energy Intensity Reductions**



## Fleet Efficiency

The EPA is currently implementing a new fleet management information system (FMIS), which will allow the agency to monitor and analyze fleet vehicle use and fuel consumption. Tactical vehicles the agency employs are included in the FMIS, and the EPA will analyze their use as it works to right-size the agency's fleet.

The FY 2019 fuel use for non-fleet vehicles and other equipment increased 62.0 percent compared to FY 2018 because the Mid-Continent Ecology Division Laboratory's research vessel in Duluth, Minnesota, was fueled with diesel twice in FY 2019.

## Renewable Energy

The EPA installs onsite renewable energy and alternative energy systems where practical and cost-effective. These systems help the agency build energy resiliency, diversify its energy supply and reduce energy losses from transmission and distribution. In FY 2019, onsite renewable resources at nine EPA facilities generating wind, solar and geothermal power supplied the EPA with 6.7 billion Btu, equivalent to 0.7 percent of the agency's energy use.

To supplement onsite renewables, in September 2019, the EPA procured a blanket purchase agreement (BPA) through the Defense Logistics Agency for a total of more than 15.4 million kWh of renewable energy certificates that supported renewable energy generation in Kansas. Combined with two additional

green power contracts, the EPA purchased 15.8 million kWh of delivered green power and RECs for FY 2019. With other small green power contracts and onsite renewable energy generation, this BPA covers 16.2 percent of the agency's FY 2019 total electricity use and ensured the agency exceeded the EPAAct requirement that at least 7.5 percent of agencywide electricity use be from renewable sources.

## Water Conservation

In FY 2019, the EPA's reported water intensity was 20.3 gallons per GSF, which is 8.9 percent lower than the agency's FY 2018 water intensity of 22.3 gallons per GSF and 43.3 percent lower than the agency's FY 2007 water intensity of 35.7 gallons per GSF. In absolute terms, the EPA's FY 2019 water consumption was 72.1 million gallons, compared to its FY 2007 water consumption of 136.5 million gallons. The FY 2019 government shutdown, a facility closure and operational and research changes at certain EPA laboratories contributed to the agency's water consumption decrease from FY 2018.

**In FY 2019, EPA's water intensity performance was:**

- **8.9 percent lower than FY 2018**
- **43.3 percent lower than the FY 2007 baseline**

**Figure 2. The EPA's Annual Water Intensity Reductions**

