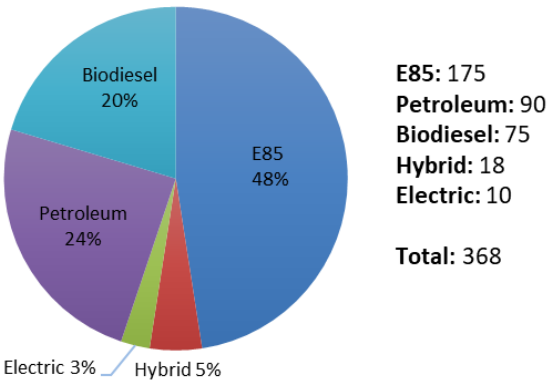
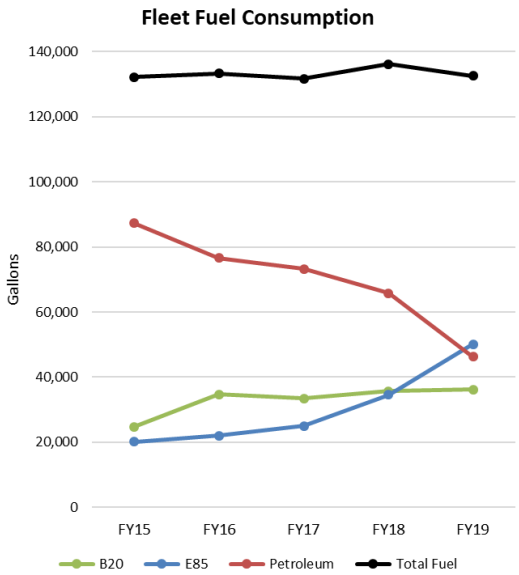
The NIH Fleet & Alternative Fuels

As an entity of the Federal Government, the NIH is required to meet and maintain certain sustainability standards for our fleet of work vehicles. These requirements are driven by legislation such as the EPAct of 2005, the EISA of 2007, Executive Order 13834: Efficient Federal Operations and many more. The NIH has been proactive with meeting these requirements by adopting alternative fuel vehicles whenever practical and cost-efficient. This has resulted in an 87% decrease in petroleum use in FY2019 compared to FY2005, far surpassing the mandate of a 20% reduction. During FY2019, the NIH also used 62% less petroleum than FY2018, which also far exceeds the requirement to reduce petroleum usage each fiscal year.

The reduction in petroleum usage has been largely driven by a transition to flex fuel vehicles (FFV). These vehicles can operate using mixtures of ethanol and gasoline ranging from 10% ethanol (conventional gasoline) up to 85% ethanol (E85). This gives the operators greater flexibility to utilize less petroleum when higher concentration ethanol blends are available, but still allows for the use of traditional gasoline if needed. Vehicles that can use E85 fuel account for 48% of the NIH fleet, which has led to a steady increase in E85 usage over the past few years. E85 consumption has increased from around 20,000 gallons in FY2015 to approximately 50,000 gallons in FY2019.





An increase in the utilization of biodiesel has also helped reduce petroleum consumption by the NIH fleet. The primary blend for biodiesel has been B20, which is 20% biodiesel and 80% traditional diesel. Most diesel vehicles can utilize B20 without any changes to the traditional engine setup. The consumption of B20 has increased from approximately 25,000 gallons in FY2015 to around 35,000

gallons in FY2019. The increases in B20 and E85 usage have occurred while overall fuel usage by the NIH fleet has remained relatively constant. This has driven the petroleum usage down to around half of its FY2015 amount and less than the amount of E85 fuel. By comparison, petroleum products accounted for about 91% of the fuels used by the U.S. transportation sector. These changes to the NIH fleet will provide many benefits, such as reduced greenhouse gas emissions, which were down 22% in FY2019 compared to FY2015. Let us each do our part to make the NIH fleet more sustainable and seek out opportunities to go even further beyond these already fantastic results!