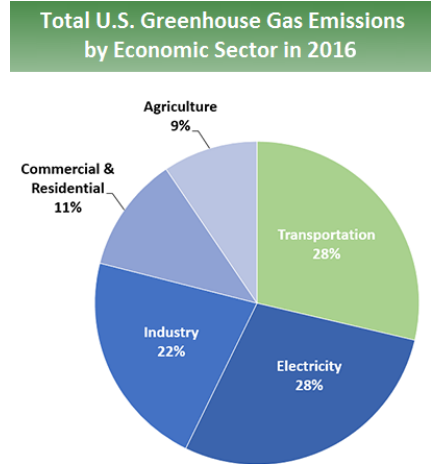


Transportation Emissions Fact Sheet

- Transportation was approximately 28% of the US greenhouse gas emission in the US in 2016 (EPA Sources of Greenhouse Gas Emissions)
 - Tied for first with electricity production
 - Total US transportation-based CO₂ emissions have risen from 1500 million metric tons in 1990 to 1800 million metric tons in 2016
 - “passenger cars and light-duty trucks, including sport utility vehicles, pickup trucks, and minivans” make up more than half of emissions in the transportation sector



- Maryland transportation makes up approximately 36% of our total greenhouse gas emissions in 2014 (Maryland Department of the Environment)
 - Tied for first with electricity production on the state level too
 - On-road gasoline-powered vehicles made up 67% of transportation greenhouse gas emissions in 2014
 - On-road diesel-powered vehicles made up 19% of greenhouse gas emissions in 2014
 - Air travel made up 3% of greenhouse gas emissions in 2014
 - Marine vessels, rail-based vehicles, and alternative fuel source vehicles make up the remaining 11% of transportation-based emissions
 - Maryland transportation greenhouse gas emissions fell from 2006 to 2014, but were projected to rise substantially between 2014 and 2020

FIGURE ES-2: GROSS GHG EMISSIONS COMPARISON BY SECTOR, 2006, 2014 & 2020

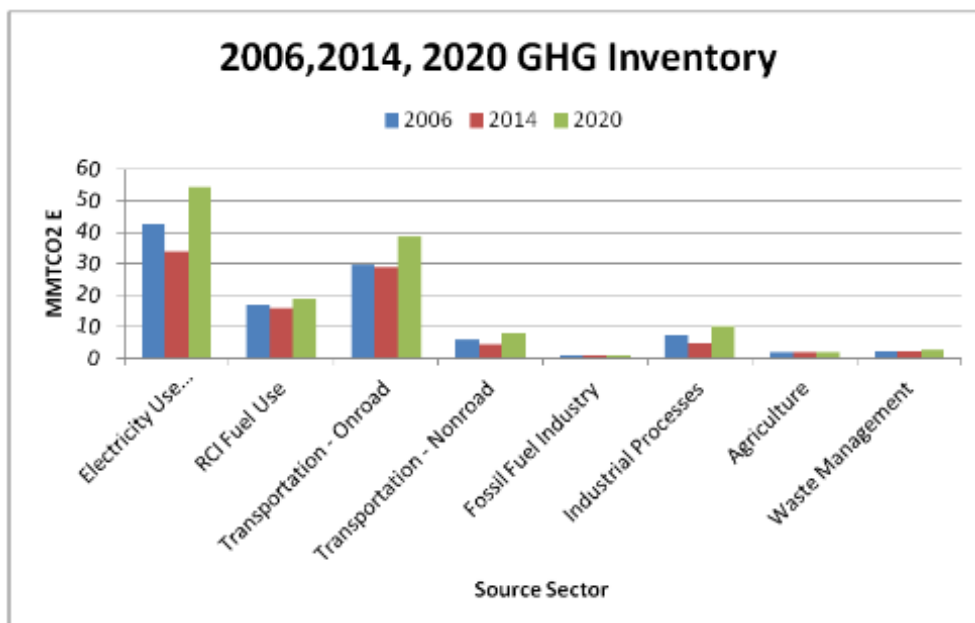
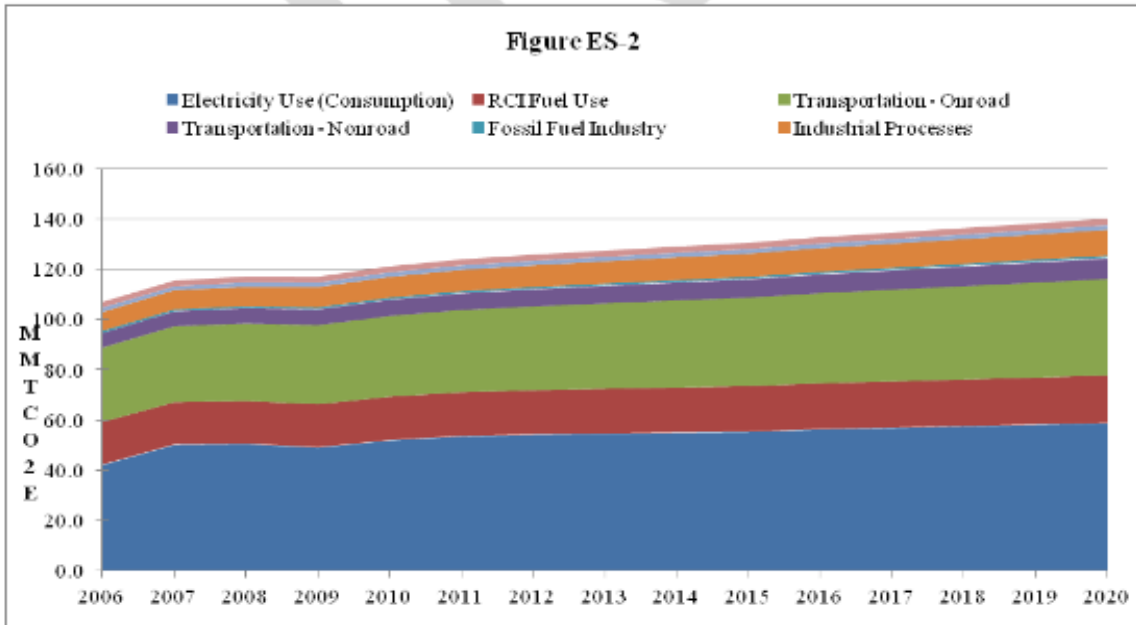


FIGURE ES-3: MARYLAND GROSS GHG EMISSIONS BY SECTOR, 2006-2020: BASE YEAR AND PROJECTED



- Major transportation-based pollutants (Union of Concerned Scientists):
 - Particulate Matter (PM): Found in soot which comes out of the vehicle exhaust typically from diesel engines
 - Small particulates less than one-tenth of the diameter of a human hair
 - The smallest particulates (PM 2.5) can penetrate deep into lungs
 - Volatile Organic Compounds (VOCs): Pollutants that react with nitrogen oxides and sunlight to create ground level ozone (smog)
 - At ground level, this causes coughing, choking, and reduced lung capacity
 - VOCs that come from cars, trucks, and buses are linked to multiple forms of cancer
 - Nitrogen Oxides (NOx): Form smog with VOCs
 - Causes lung irritation and weakens body's defenses against respiratory infections
 - Carbon Monoxide (CO): Poisonous gas formed by combustion of fossil fuels
 - Primarily emitted by cars and trucks
 - CO blocks oxygen from circulating through the body which prevents function of the brain, heart, and other vital organs
 - Sulfur Dioxide (SO₂): Reacts with the atmosphere to create fine particulates
 - Typically created by diesel and coal
 - Is a health risk to young children and asthmatics
 - Greenhouse gases