



Maryland
Department of
the Environment

Customer Service Enhancements to the Vehicle Emissions Inspection Program (VEIP)





Overview

- Significant air quality progress has been made in Maryland over the last decade
- Major advancements in vehicle technology and testing methods have also occurred
- Major, new emission reduction programs are on the way
- Maryland is looking for opportunities to provide enhanced customer service to Marylanders
- Because of this, we are reinventing the VEIP to catch up with technology, modernize and simplify the program





VEIP Reinvention

- Step 1 - Initiation of Kiosk program in 2015
 - No regulation changes required
- Step 2 - Today's proposed regulatory changes
 - New vehicles get 1 extra year until they get tested
 - Elimination of part of the outdated "idle" test through the exemption of pre-1996 light duty vehicles
- Step 3 - Additional customer service enhancements under consideration between 2018 and 2022
 - New technologies like remote OBD (On-Board Diagnostics)
 - Other enhancements





Background

- VEIP has been a cornerstone air quality program in Maryland for three decades
 - Marylanders have been “paying it forward”
- New vehicles are now amazingly clean ... emission standards get tougher each year
 - Vehicles in 2017 are also very dependable ... they maintain the lower emissions levels for a longer time
- New emission control programs like the Tier 3 vehicle and fuel standards, the Cross State Air Pollution Rule (CSAPR) and the Maryland 126 Petition (both target power plants) are on the way
- Emissions testing technology is far superior to past methods
 - Computerized OBD testing is now possible on the vast majority of the fleet
 - Much more thorough and virtually non-invasive compared to older test types





A Snapshot - The Customer Service VEIP Enhancements

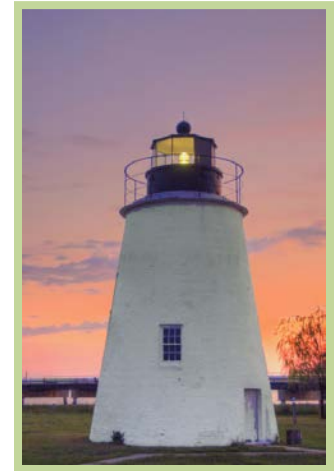
- Delay initial test for new vehicles by one year
 - From the current two years to three years
 - Vast improvement in motorist convenience
- Exempt pre-OBD technology light duty vehicles
 - Move toward an OBD-only program
- These are common sense enhancements that improve customer service, and allow Marylanders to benefit from vehicle technology and the significant air quality progress we've made





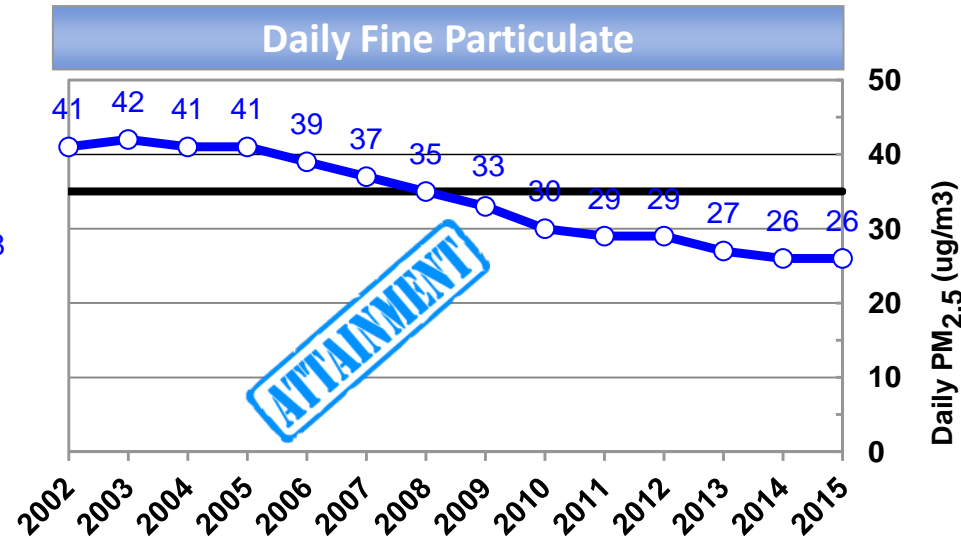
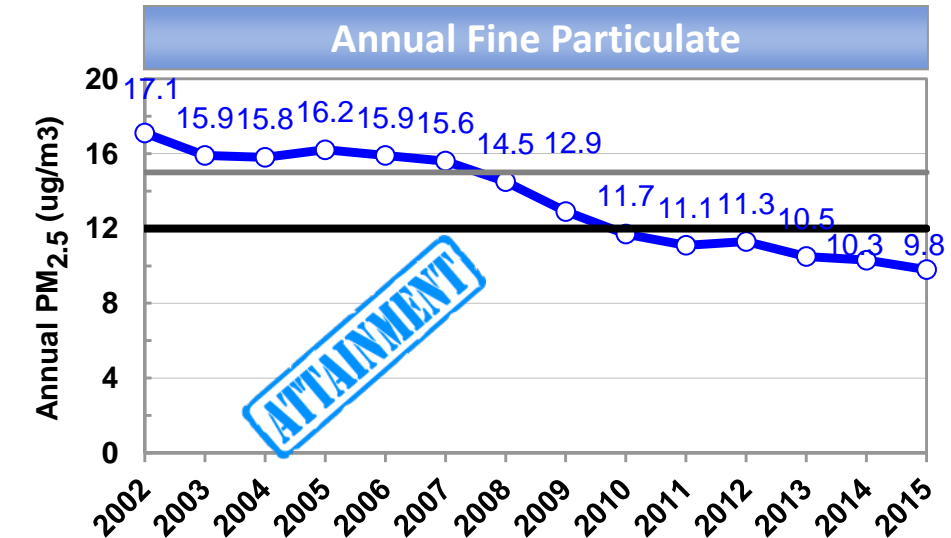
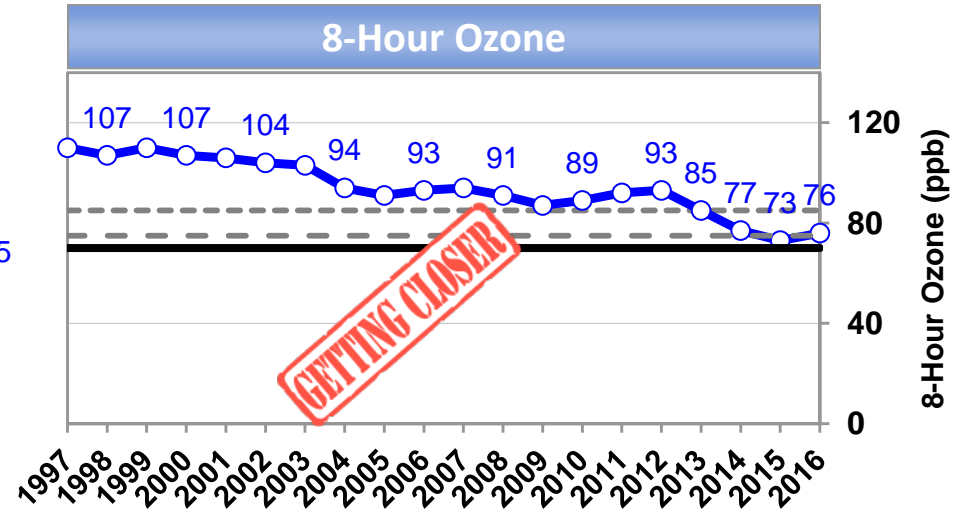
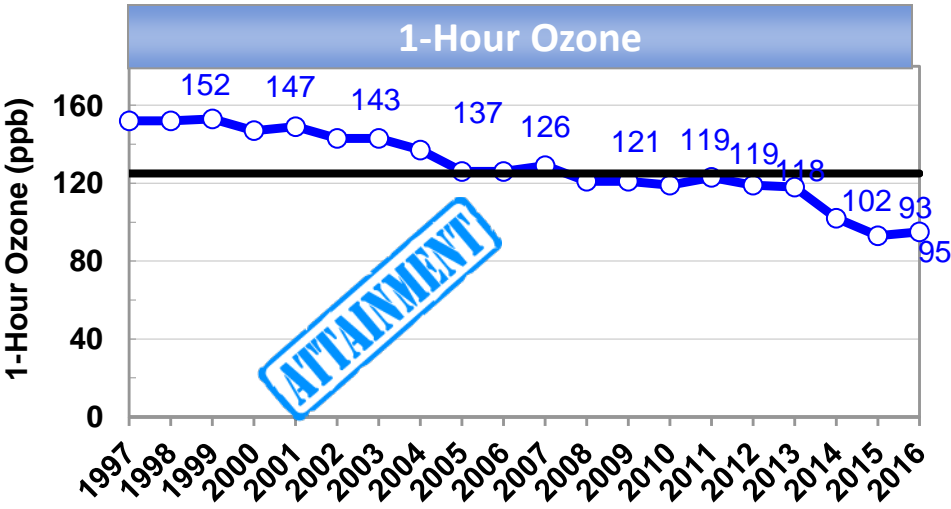
A Recap - Clean Air Progress

- The air is getting cleaner every year
- Maryland has already implemented aggressive pollution controls on Maryland power plants, cars and trucks and many other sources
- These controls have been very effective and did what they were supposed to do
 - Maryland is measuring attainment for fine particulates and ozone and SO₂ levels have dropped dramatically since 2004
 - Still have work to do on ozone and SO₂
 - Achieving 25% GHG reduction by 2020 - working on 40% by 2030
- New emission control programs are on the way
 - Vehicles, fuels, new power plant controls





Ozone and Fine Particles



Note: 2016 Ozone Data is Preliminary.



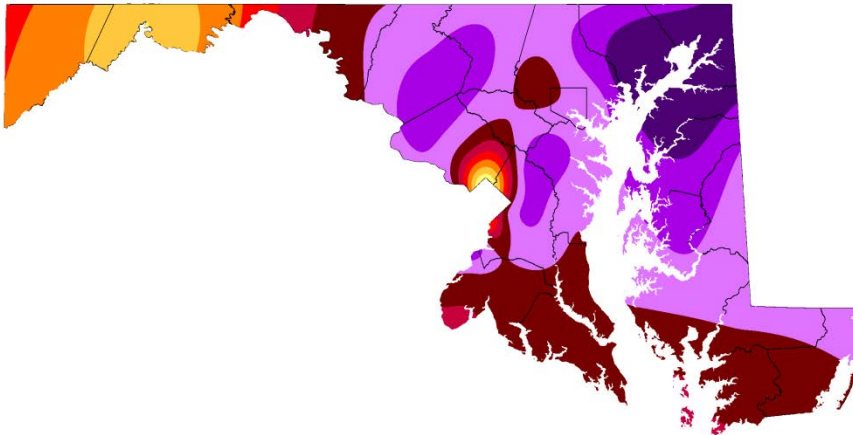
Baltimore Progress

- Baltimore has historically had some of the worst air pollution in the East
- In 2008, Baltimore was designated by EPA as having the worst ozone outside of CA and TX
 - In a famous 2005 MIT study - Baltimore identified as having the riskiest air to breathe in the East (fine particle driven)
- **That has all changed ...**
 - From 2013 to 2016, Baltimore did not exceed the old ozone standard (75 ppb) - First time in 30 years ... close to meeting new 2015 standard (70 ppb)
 - EPA has now finalized a “Clean Data Determination” for Baltimore
- Baltimore ... and the rest of the State ... are now meeting the fine particulate standard
 - Fine PM levels continue to go down ... dramatically

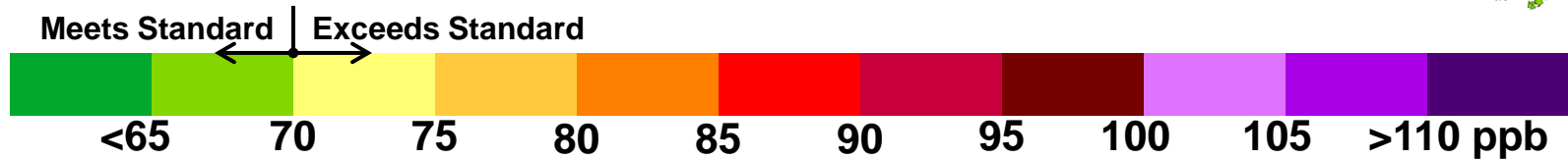
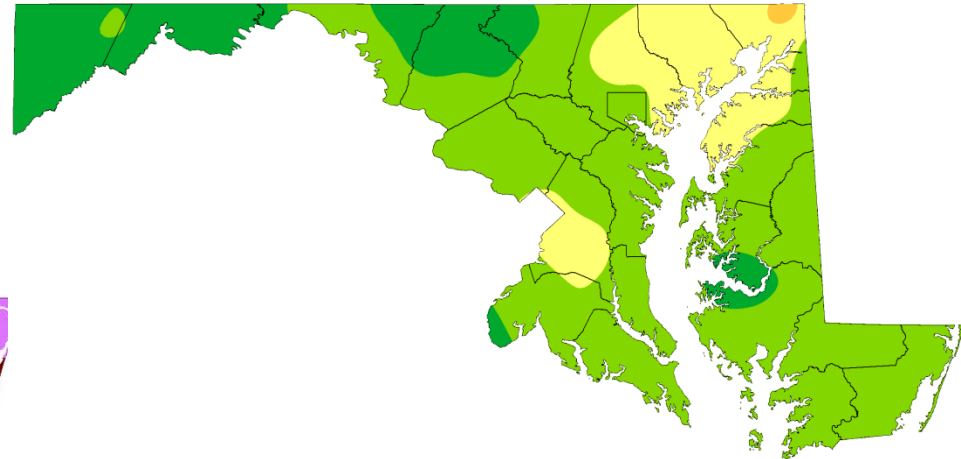


The Shrinking Ozone Problem

1990



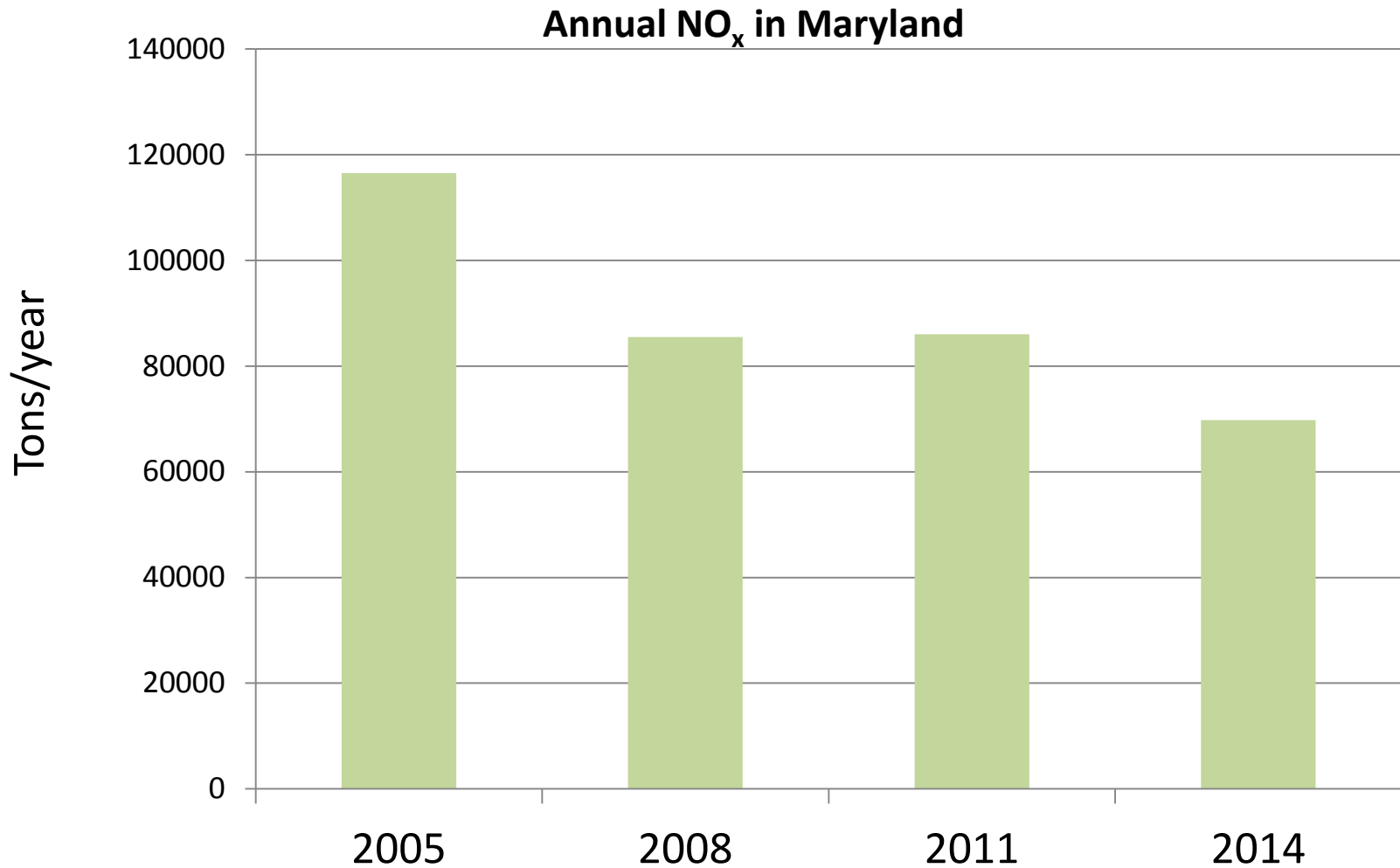
2016



- In 2016 only areas of Baltimore, Harford, Kent, Cecil, and Prince George's Counties were above the new ozone threshold of 70 ppb



Mobile Source NO_x Emissions





Mobile Source Reduction Programs

- The Maryland Clean Cars Program (2007 Legislation)
 - Requires Maryland cars to be the cleanest allowed by federal law
 - Works in tandem with Federal vehicle and fuel standards
 - Includes requirements to push manufacturers to develop and sell electric vehicles (EVs)
- 2017 Clean Cars Act - Extends and increases incentives for buying EVs and EV infrastructure
- Tier 3 vehicle and fuel standards
- Diesel initiatives - VW and DERA





Vehicle Technology

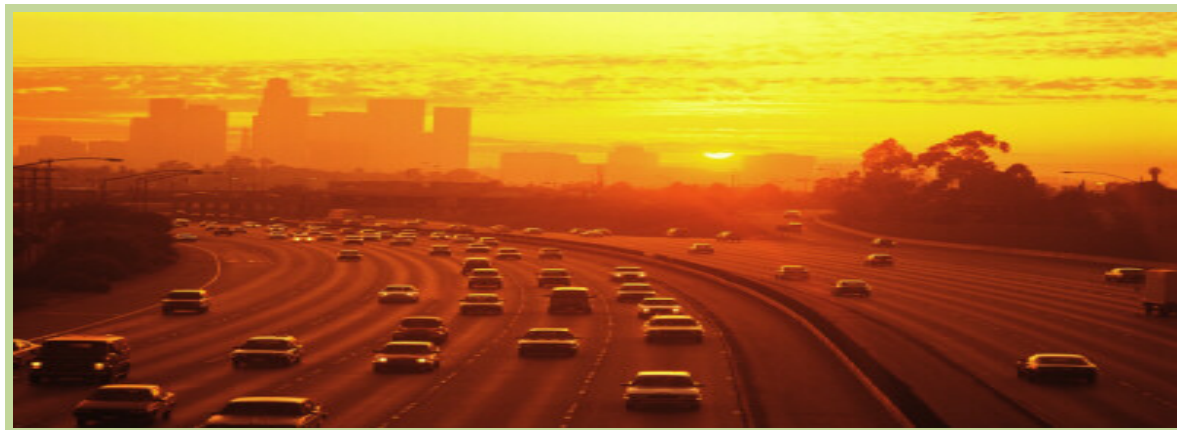
- Emissions reduction and emissions testing technologies have made dramatic progress over the last 15 years
- 2017 vehicles are over 90% cleaner than 1990 vehicles
- Computerized OBD emissions testing systems have also revolutionized the way vehicle inspection and maintenance programs work
- Each year, vehicles get cleaner and more reliable





The Proposed Amendments

1. New vehicles will now have until year 3 to get tested
 - Was ... “after 2 years”
2. Pre-1996 light duty vehicles will now be exempt
 - First step in phase out of idle test
3. That’s it





Year 3 Extension

Regulation Language

- 11.14.08.05 B(4)(b) ... for a vehicle of the current or preceding model year that has not been previously titled or registered in any jurisdiction and for which the ownership document is a manufacturer's certificate of origin, the Administration shall assign a date of scheduled inspection which is at least **[24] 36** months after the model year of the vehicle.





What About Other States?

Year After Which New Vehicles are Tested	Count of States	States
1	10	LA, ME, MA, MO, NH, NV, PA, TN, TX, VT
2	4	MD, NY, RI, UT
3	4	DC, GA, NM, WI
4	7	CT, IL, IN, NC, OH, OR*, VA
5	4	AZ, DE, ID*, NJ
6	1	CA
7	2	CO, WA
Average is 3 years (4 years for centralized programs)	Total = 32	* Program not federally mandated



Idle Test Phase Out

- Exemption of pre-1996 model year cars and light trucks
 - Built prior to OBD computer controls
 - Over twenty years old and rapidly retiring from the vehicle population
- Heavy duty, commercial trucks will continue to be idle tested
 - Heavy duty vehicles are making transition to OBD compliance
 - Eventually idle test will be completely phased out





Idle Test Phase Out

Regulation Language

11.14.08.04 Exemptions.

A. (text unchanged)

B. Exempt vehicles include the following vehicles:

(1) — (15) (text unchanged)

(16) Of a model year earlier than 1977; [or]

(17) Of a gross vehicle weight of 8,500 pounds or less and model year earlier than 1996; or

[(17)] (18) A military vehicle owned by the federal government and used for tactical, combat, or relief operations, or for training for these operations.



Customer Service Benefits

- Each year, about 209,000 motorists will not need to have their vehicle tested because of the year 3 extension
- About 24,000 motorists with pre-1996 light duty vehicles will also no longer need to have their vehicle tested
- \$2.25 Million cost savings to motorists in 2018





Emissions

- Year 3 extension
 - 0.01 tons per day (tpd) NO_x increase
 - 0.02 tpd VOC increase
- Idle test phase out
 - No effect on NO_x
 - 0.93 tpd VOC increase





To put those numbers into context ...

- The Tier 3 Low Sulfur Fuel program is expected to achieve 14 tpd of NO_x reductions starting in 2017
- The MD 2015 power plant rule approved by AQCAC is generating at least 9 tpd NO_x reduction
- Maryland's November 2016 "Section 126 Petition" could reduce NO_x emissions from 36 power plants in 5 upwind states (identified by EPA as significant contributors to Maryland) by about 300 tpd (not a typo!)
- Recent Maryland rule for consumer products and paints is projected to achieve an approximate 8 tpd of VOC reductions starting in 2018





Working With EPA

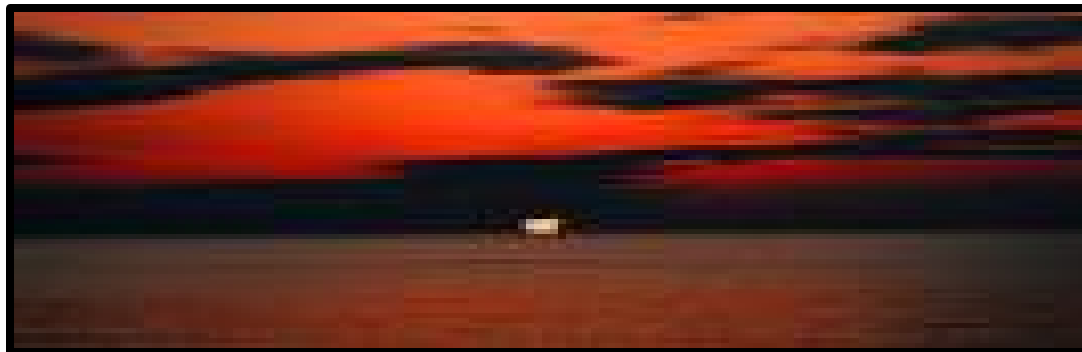
- EPA encourages states to modify their programs as air quality progress allows
 - Take advantage of better technology and move toward an OBD-only program
- States have authority to make these changes so long as federal performance standards for the emissions inspection program continue to be met
 - MDE is working with EPA to ensure compliance





Additional Customer Service Enhancements by 2020

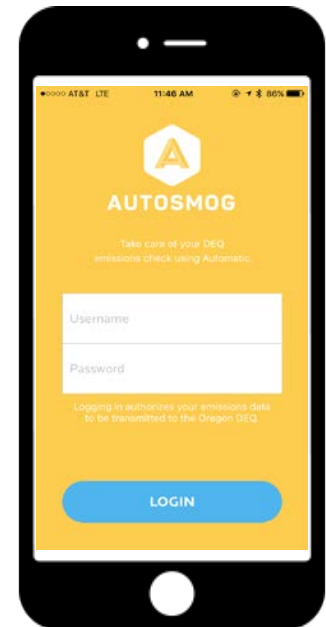
- MDE will be working with MDOT and MVA on additional customer service enhancements to VEIP over the next few years
- Expect major technology improvements in the near future
 - Remote OBD is an exciting new technology that appears to be emerging as we speak





What is Remote OBD?

- Motorist option that allows VEIP inspections to be conducted without visiting a VEIP station or kiosk
 - Will always be a voluntary option because of “Big Brother” issues
- Test data is collected by a plug in device or factory-fitted system (e.g., OnStar) and sent over a wireless network
- Technology is being tested in Oregon
 - Will provide lessons for Maryland



A bright sun is positioned in the upper right quadrant of the image, casting a strong glow and creating a lens flare effect. The sky is a vibrant blue, and several large, fluffy white clouds are scattered across the scene, particularly in the upper left and right areas. The overall atmosphere is bright and clear.

QUESTIONS