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THE MARYLAND HOUSE OF DELEGATES
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Sponsor Testimony in Support of HB835

Retail Service Stations – New Construction – Setbacks and Electric Charging Stations

Delegate Sheila Ruth

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In recent years there has been a proliferation of new, large gas stations built across Maryland. These stations are often built next to or very near existing gas stations. The size of these stations and proximity to other, existing stations raises health, environmental, and economic concerns. HB835 attempts to address some of those concerns.

Gasoline contains multiple chemicals with known health impacts. Of these, benzene is of particular concern. It has been classified by the U.S. EPA and others as a known human carcinogen, and long term exposure is linked particularly to blood cancers such as acute myeloid leukemia. The cancer risk is related to the level of exposure, and so is impacted by factors such as the percentage of benzene in the gasoline, the amount of gasoline that is released into the atmosphere and the groundwater, and the distance from the source.

Much work has been done to protect public health from the toxic chemicals in gasoline. Underground storage tanks are generally now double-walled and well-regulated. Most modern vehicles are equipped with Onboard Refueling Vapor Recovery (ORVR) systems to capture the vapors during refueling.

However, there are avenues that remain that may allow for benzene and other chemical contamination. Dr. Markus Hilpert has done extensive research into some of these areas. Dr. Hilpert has submitted written testimony, and will be testifying orally. I encourage you to look at the figures in his written testimony.

- Gasoline spills during refueling may infiltrate the concrete and evaporate into the air. Dr. Hilpert's research has found that there may be greater impact from these spills than previously thought.
- Spills may also be washed off into the surrounding environment, potentially contaminating sensitive waters or residential wells.
- Under certain conditions, toxic fumes including benzene may be emitted from underground storage tanks through the vent pipes. Dr. Hilpert's research has found that these emissions may be as much as ten times greater than estimates from the California Air Resources Board.

- Dr. Hilpert's research has also found that gasoline vapors may be released during refueling even with the presence of Onboard Refueling Vapor Recovery systems.

Locating these new stations next to existing stations is also problematic, because new research indicates that cancer risk increases with clusters of gas stations due to the increased emissions. It's also problematic from a business perspective because the new station can cannibalize the business of existing stations. And generally, additional gas stations aren't needed due to the presence of existing gas stations.

To protect residents from long term exposure to benzene and other toxic chemicals, HB835 requires all new gas stations to be set back at least 1000 feet from sensitive land uses like schools, day care centers, playgrounds, and residential properties. It also requires setback from other gas stations due to the research showing greater cancer risk from clusters of gas stations.

We are also seeing a rapid move toward the electrification of vehicles. Some vehicle manufacturers have already announced that they will be transitioning their vehicle lines to electric vehicles. Just this week Mercedes-Benz announced plans to join the EV transition.

We can reasonably anticipate that by the middle of the next decade, the number of internal combustion engine-powered vehicles on the road will be significantly reduced, which will of course have a major impact on the business model for gas stations. If we don't want our communities littered with vacant properties that were formerly gas stations, we need to do more to encourage the transition to our electric future. Requiring gas stations to install electric chargers will not only encourage greater adoption of electric vehicles, it will also help these businesses to transition.

I'm working on some amendments to the bill to address some of the concerns. Among other things, I've learned that Level 2 chargers are insufficient for a gas station, because people won't want to leave their car at a station overnight. After careful study and multiple discussions, I'm planning to submit an amendment to instead require at least 150kw DC Fast Chargers, and to reduce the number of chargers required from one per pump to one per dispenser. (Essentially, one charger for every two pumps).

Finally, you'll hear from some of the opposition that this should be a local decision. While it's true that zoning and land use are generally the purview of the counties and municipalities, the state has a responsibility to protect the environment and health of our residents, and that's the purpose of this bill. Land use should not trump these important health and environmental considerations.

Gas stations are a necessity while we still rely on gasoline-powered vehicles. Until they are no longer necessary, HB835 is an important step in protecting public health and the environment and assisting in the transition to the EV economy. I ask for a favorable report for HB835.

Relevant Research:

Hydrocarbon Release During Fuel Storage and Transfer at Gas Stations: Environmental and Health Effects

Infiltration and evaporation of small hydrocarbon spills at gas stations

Vent pipe emissions from storage tanks at gas stations: Implications for setback distances

Gasoline Vapor Emissions During Vehicle Refueling Events in a Vehicle Fleet Saturated With Onboard Refueling Vapor Recovery Systems: Need for an Exposure Assessment

Benzene emissions from gas station clusters: a new framework for estimating lifetime cancer risk