



# County of Fairfax, Virginia

## MEMORANDUM

DATE: March 11, 2026

TO: Fairfax County Board of Supervisors

FROM: Larry J. Zaragoza, DEnv, Chair *Larry J. Zaragoza*  
Environmental Quality Advisory Council

SUBJECT: State Proposals to Address Diesel Generators Use by Data Centers

The Virginia Department of Environmental Quality (DEQ) is seeking comment on two proposed guidance documents that will reduce emissions of toxic air pollutants and noise from diesel generators that support data centers. DEQ is accepting comments on these two guidance documents until April 8, 2026.

The first draft guidance provides a boilerplate for diesel engine-generator sets permits by adopting Tier IV as Best Available Control Technology for generators that support data centers. The determination of what facilities would be required to employ BACT would be made on a case-by-case basis. Requiring Tier IV for diesel generators would reduce Greenhouse Gases, noise, and pollution (criteria air pollutants and toxic air pollutants). Designating Tier IV generators as BACT will be helpful in requiring Tier IV generators for those sites that are close to populations. Given the large number of generators that are typically needed to support back-up energy for data centers, the marginal attainment status that the northern Virginia region holds, and the close proximity of populations to many data centers, the use of Tier IV generators should be required wherever possible. **EQAC recommends that the county recommend to DEQ that affords it flexibility to require BACT for any project with diesel generators.**

The second draft guidance expands the use of emergency generators to include planned electric outages less than 14 days. If 14 days of advanced notice of a planned power outage has been provided and the facility is not already using Tier IV generators, then the facility would need to bring in Tier IV generators or the equivalent of Tier IV generators or portable non-road engines. **Given the large amount of electricity required by data centers, the likelihood of more power outages as the electric grid is stressed, and the deleterious environmental impacts of Tier II generators, we recommend that the county recommend to DEQ that Tier IV generators be required as Tier II generators are replaced.**

In addition to the above two recommendations, we ask that the county recommend that DEQ include information on two additional opportunities to reduce impacts, including greenhouse gas emissions. First, battery backup systems should be encouraged to shave peak loads and provide backup power needs for events that last hours. This is important because the need to construct power plants is determined by peak load and reducing peak load reduces the need to

construct more power plants. Second, DEQ should highlight the benefits of fuel cells, which are already being adopted by some data centers for both primary and backup power. While the capital cost of fuel cell systems is higher than diesel generators, lifecycle costs are reported to be lower.

Thank you for your consideration of these comments.

cc: John Morrill, Director OEEC  
Christopher Herrington, Director DPWES  
Carmen Bishop, Deputy Zoning Administrator  
EQAC