



Volpe, The National Transportation Systems Center

# Environmental and Energy Systems

Our Center for Environmental and Energy Systems specializes in the analysis and measurement of climate variability, air quality, and noise, and maintains substantial expertise in environmental engineering, compliance, and sustainability, including the National Environmental Policy Act (NEPA).

We conduct measurements, develop computer models, and perform analyses that provide the technical basis for many transportation-related environmental policies.



U.S. Department of Transportation  
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## What We Do

### Energy Analysis and Sustainability

Volpe's Energy Analysis and Sustainability Division evaluates the technical feasibility, environmental sustainability, and safety of advanced vehicle and fuel technologies from a multimodal, system-wide perspective.

We work with transportation leaders to guide policies and regulations that reduce energy use and greenhouse gas emissions.

### Environmental Measurement and Modeling

Volpe's Environmental Measurement and Modeling Division measures and models acoustics and air quality to support transportation-related noise, air quality, and safety initiatives. Our work is used to develop energy and environmental policies and drive reductions in carbon and other greenhouse gas emissions.

Our team measures noise and emissions for all modes of transportation and conducts long-term noise monitoring in remote locations, such as national parks.

### Environmental Science and Engineering

Volpe's Environmental Science and Engineering Division performs real-world environmental assessments of sites and facilities. We evaluate environmental compliance,

examine remediation alternatives, and implement innovative, cost-effective solutions.

Our work helps reduce pollution and other adverse environmental effects from transportation and transportation facilities.

### Corporate Average Fuel Economy

Volpe's Corporate Average Fuel Economy (CAFE) Program Office develops and executes analyses to assess the costs and benefits of national fuel economy standards.

We serve as a primary technical resource for the National Highway Traffic Safety Administration's (NHTSA) CAFE program, partnering with the agency to manage and implement all aspects of NHTSA's fuel economy program.

## Our Capabilities

- Alternative fuel assessment
- Application of GIS to a variety of problems
- Aviation noise certification and differential GPS validation
- Decontamination, demolition, and decommissioning
- Emission assessment and air quality analysis
- Engineering, economic, energy, and industry analyses
- Environmental policy development and analysis
- Environmental review of transportation infrastructure projects
- Integrated modeling of transportation impacts using a suite of environmental tools
- Modeling of emissions and dispersion from transportation-related sources
- NEPA compliance and environmental impact assessment
- Remediation and restoration

## Our Sponsors

- Federal Highway Administration
- Federal Railroad Administration
- Federal Transit Administration
- Massachusetts DOT
- National Aeronautics and Space Administration
- National Highway Traffic Safety Administration
- National Park Service
- Office of the Secretary of Transportation
- Pipeline and Hazardous Materials Safety Administration
- State of Arizona
- State of Florida DOT
- University of Florida
- U.S. Department of Energy
- U.S. Environmental Protection Agency

## Contact Us

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