



**THRIVING
COMMUNITIES**
PROGRAM



Climate Change & Resiliency Resource Sheet

Climate Change presents a growing risk to our existing transportation infrastructure, and the communities that it serves, as well as the people who rely on it. DOT has several resources, programs, and funding that will help communities to mitigate greenhouse gas emissions and transportation related pollution; and to create more resilient infrastructure.

Training

The National Highway Institute (NHI) is the training arm of the Federal Highway Administration. NHI developed training for transportation practitioners to understand climate change concepts, interpret temperature and precipitation projections, and apply this information to transportation decision-making through vulnerability assessments, analysis of adaptation options, and addressing resilience in project development and preliminary design. The first four courses below are each one to two-hour online training modules that are free and available to the public.

- [142081 Understanding Past, Current and Future Climate Conditions](#)
- [142082 Introduction to Temperature and Precipitation Projections](#)
- [142083 Systems Level Vulnerability Assessments](#)
- [142084 Adaptation Analysis for Project Decision Making](#)
- [142085 Addressing Climate Resilience in Highway Project Development and Preliminary Design](#)

Technical Assistance Resources and Tools

- [Addressing Resilience to Climate Change & Extreme Weather in Transportation Asset Management](#) (2023) - This handbook provides approaches, strategies, and examples of addressing risks related to extreme weather and climate change in asset management.
- [Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure](#) - a one-stop resource to help rural communities scope, plan, and fund EV charging infrastructure.
- [CMAQ Emissions Calculator Toolkit](#) – provides estimates of the amount of emissions reductions projected from implementing various types of transportation projects, such as pedestrian improvements, EV and alternative fueling infrastructure, managed lanes, and adaptive traffic control.
- [FHWA Sustainability Website](#) – provides guidance on the federal Carbon Reduction Program and National Electric Vehicle program guidance, along with other useful resources including transportation planning emission reduction strategies.

- [Handbook for Estimating Transportation Greenhouse Gases for Integration into Planning Process](#) - helps State DOTs and MPOs understand the possible approaches, data sources, and step-by-step procedures for analyzing GHG emissions.
- [Infrastructure Carbon Estimator \(ICE\)](#) - a spreadsheet tool that estimates the lifecycle energy and GHG emissions from the construction and maintenance of transportation facilities.
- [Integrating GHG Assessment and Reduction Targets in Transportation Planning](#) – outreach and assistance to State DOTs under the FHWA Every Day Counts Program, which highlights innovations ready for deployment.
- [Joint Office of Energy and Transportation](#) - provides technical assistance on planning and implementation of a national network of electric vehicle chargers and zero-emission fueling infrastructure as well as zero-emission transit and school buses.
- Many more resources are available at the [DOT Climate Change Center](#)

Funding Grants with a Climate Resiliency or Decarbonization Focus

- [PROTECT](#) Discretionary Grant Program (FHWA)
- [Charging and Fueling Infrastructure \(CFI\)](#) Discretionary Grant Program (FHWA)
- [Low or No Emission Transit Vehicles](#) Grant Program (FTA)
- [National Electric Vehicle Infrastructure \(NEVI\)](#) Formula Program
- [Federal Funding Available for Electric Vehicle Charging Infrastructure](#) – information on federal funding sources available for building EV charging stations.
- See the [DOT Grant Discretionary Dashboard](#) for other programs (filter “eligible activities” by “climate and sustainability”)

Note that most DOT discretionary grant programs include merit criteria factor related to climate change and resiliency to evaluate grant applications. To help applicants develop stronger applications DOT developed a [Strong Climate Change Mitigation, Adaptation and Resilience Grant Application Checklist](#)

Whether pursuing formula or discretionary grant funds, communities should work with their state DOTs, metropolitan planning organizations, and transit agencies who play an important role in the planning and programming of these funds. For any project to be funded by DOT, it must be included in the Statewide Transportation Improvement Program (STIP) or the metropolitan planning organizations’ Transportation Improvement Program (TIP). For more information see: [Transportation Planning Capacity Building](#)

Other Resources

- [U.S. National Blueprint for Transportation Decarbonization](#)
- [NHI Intro to NEPA and Transportation Decision-making](#)
- [FTA Climate Considerations website](#)
- [FHWA Resource Center](#)