



TRB Snap Search: Decarbonization

TRB's involvement in research on Decarbonization from 2017-2021

The [Transportation Research Board \(TRB\)](#) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:

- Opportunities for information exchange on current transportation research and practice
- Management of cooperative research and other research programs
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world

All available Snap Searches can be accessed online here: <http://www.trb.org/InformationServices/Snap.aspx>

TRB Research

TRID – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation

- Click here to view [search results](#) on TRB published research Decarbonization within the past four years.

Specialty Webpages

- [Environment Research at TRB](#)
- [Climate Change](#)

Specialty Report

- [Critical Issues in Transportation 2019](#)
- [COVID-19 Addendum to Critical Issues in Transportation](#)

Recent Reports & Publications

- [Airport Cooperative Research Program \(ACRP\)](#)
 - [Report 220](#) - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
 - [Report 207](#) - Optimizing the Use of Electric Preconditioned Air (PCA) and Ground Power Systems for Airports
 - [Report 205](#) - Revolving Funds for Sustainability Projects at Airports
 - [Report 199](#) - Climate Resilience and Benefit–Cost Analysis: A Handbook for Airports
 - [Report 197](#) - Guidebook for Developing a Comprehensive Renewable Resources Strategy
 - [Report 185](#) - Airport Air Quality Management 101
 - [Report 180](#) - Guidebook for Quantifying Airport Ground Access Vehicle Activity for Emissions Modeling
 - [Report 179](#) - Dispersion Modeling Guidance for Airports Addressing Local Air Quality Health Concerns
 - [Synthesis 110](#) - Airport Renewable Energy Projects Inventory and Case Examples
 - [Synthesis 100](#) - Airport Greenhouse Gas Reduction Efforts
 - [Synthesis 89](#) - Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers
 - [Synthesis 85](#) - Alternative Fuels in Airport Fleets
 - [Web-Only Document 51](#) - Commercial Space Vehicle Emissions Modeling
 - [Web-Only Document 41](#) - Alternative Jet Fuels Emissions: Quantification Methods Creation and Validation Report
 - [Web-Only Document 36](#) - Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles, Volume 1: Guidance
 - [Web-Only Document 36](#) - Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles, Volume 2: Research Report
 - [Web-Only Document 35](#) - State of the Industry Report on Air Quality Emissions from Sustainable Alternative Jet Fuels
 - [WebResource 4](#) - Airport Air Quality Resource Library
- [Conference Proceedings](#)
 - [Proceedings 54](#) - Decarbonizing Transport for a Sustainable Future: Mitigating Impacts of the Changing Climate
- [National Cooperative Highway Research Program \(NCHRP\)](#)

- [IDEA Report 182](#) - Reducing Stormwater Runoff and Pollutant Loading with Biochar Addition to Highway Greenways
- [Ready Results](#) - Updating Fuel Factors for Today's Construction Projects
- [Report 924](#) - Foreseeing the Impact of Transformational Technologies on Land Use and Transportation
- [Report 909](#) - Guide to Truck Activity Data for Emissions Modeling
- [Report 862](#) - Guide to Deploying Clean Truck Freight Strategies
- [Synthesis 576](#) - Practices for Project-Level Analyses for Air Quality
- [Web-Only Document 274](#) - Zero Emission Vehicles: Forecasting Fleet Scenarios and their Emissions Implications
- [Web-Only Document 281](#) - Case Studies of Truck Activity Data for Emissions Modeling
- [Web-Only Document 246](#) - Volume 1: TRAQS User Guide
- [Web-Only Document 246](#) - Volume 2: TRAQS: A Combined Interface for Project-Level Air Quality Analysis
- [Special Reports](#)
 - [Report 337](#) - The Role of Transit, Shared Modes, and Public Policy in the New Mobility Landscape
 - [Report 336](#) - Options for Reducing Lead Emissions from Piston-Engine Aircraft
- [Transit Cooperative Research Program \(TCRP\)](#)
 - [Report 226](#) - An Update on Public Transportation's Impacts on Greenhouse Gas Emissions
 - [Report 219](#) - Guidebook for Deploying Zero-Emission Transit Buses
 - [Report 211](#) - Guidebook for Detecting and Mitigating Low-Level DC Leakage and Fault Currents in Transit Systems
- [Transportation Research Circulars](#)
 - [E-Circular 243](#) - SHRP 2 Safety Data Student Paper Competition 2017-2019
 - [E-Circular 238](#) - 2018 National Household Travel Survey Workshop

Current & Upcoming Projects

- [Current Projects](#)
 - [ACRP 02-90](#) - Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
 - [ACRP 07-18](#) - Develop Airfield Design Guidelines for Large Unmanned Aerial Systems (UAS)
 - [NCHRP 03-133](#) - Traffic Signal Design and Operations Strategies for Non-Motorized Users
 - [NCHRP 14-39](#) - Using Vegetated Compost Blankets to Achieve Highway Runoff Volume and Pollutant Reduction
 - [NCHRP 25-64](#) - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
 - [NCHRP 25-55](#) - Assessment of Regulatory Air Pollution Dispersion Models to Quantify the Impacts of Transportation Sector Emissions
 - [NCHRP 25-61](#) - Development of On-Bridge Stormwater Treatment Practices
 - [NCHRP IDEA 20-30/IDEA 211](#) - Reducing Stormwater Runoff and Pollutant Loading with Biochar Addition to Highway Greenways
 - [Transit IDEA J-04/IDEA 96](#) - Multi-stage Planning for Electrifying Transit Bus Systems with Multifunctional Charging Facilities
- [Upcoming Projects](#)
 - [ACRP 02-95](#) - Understanding Airport Air Quality and Public Health Studies Related to Airports: An Update to ACRP Report 135
 - [ACRP 02-97](#) - Updates to ACRP Environmental Reports 11, 43, 147 & 160
 - [ACRP 02-98](#) - Airport Energy Resiliency
 - [ACRP 02-100](#) - Pathways to Airport Net Zero Carbon Emissions
 - [ACRP 10-34](#) - Airport Microgrid Toolkit Upgrade to ACRP WebResource
 - [NCHRP 08-148](#) - Utility Abandonment, Out of Service Plant, and Decommissioning without Removal on Public Right of Way

Reports from the [National Academies Press](#) on Decarbonization

- [Accelerating Decarbonization in the United States: Technology, Policy, and Societal Dimensions](#)
- [Accelerating Decarbonization of the U.S. Energy System](#)
- [Advanced Technologies for Gas Turbines](#)
- [Reducing Fuel Consumption and Greenhouse Gas Emissions of Medium- and Heavy-Duty Vehicles, Phase Two](#)
- [Deployment of Deep Decarbonization Technologies](#)
- [Negative Emissions Technologies and Reliable Sequestration](#)
- [Environmental Engineering for the 21st Century](#)
- [Gaseous Carbon Waste Streams Utilization](#)
- [Future Directions for the U.S. Geological Survey's Energy Resources Program](#)

- [Enhancing the Resilience of the Nation's Electricity System](#)

Committees & Panels

[Sign-up to be a committee "Friend"](#)

TRB Standing Committees – Search by transportation mode and committee topic

- [AEP70](#) – Environmental Analysis and Ecology
- [AJL50](#) – Environmental Issues in Transportation Law
- [AKG30](#) – Geo-Environmental and Climatic Impacts on Geomaterials
- [AMS10](#) – Air Quality and Greenhouse Gas Mitigation
- [AMS20](#) – Resource Conservation and Recovery
- [AMS30](#) – Transportation Energy
- [AMS40](#) – Alternative Fuels and Technologies
- [AV030](#) – Environmental Issues in Aviation
- [AW030](#) – Marine Environment

Task Forces – Search for *task force* under committee here

- [A0020T](#) – Climate Change and Energy

Project Panels

- [D1561](#) - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
- [D2555](#) - Quantifying the Contribution of Vehicle Emissions to Local Air Quality
- [D2564](#) - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
- [DA0257](#) - Reducing the Impact of Lead Emission at Airports
- [DA0280](#) - Quantifying Emissions Reductions at Airports from the Use of Alternative Jet Fuel
- [DA02100](#) - Pathways to Airport Net Zero Carbon Emissions
- [SAS0219](#) - Synthesis of Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers
- [TI1136](#) - An Update on Public Transportation's Impacts on Greenhouse Gas Emissions

Councils

- [A001C](#) – Young Member Coordinating Council

Recent and Upcoming Events

[Upcoming Conferences](#)- Left hand menu “upcoming conferences by topic”

(Conferences cosponsored by TRB are denoted with an asterisk.)

[Geo-Extreme Conference*](#)

November 7, 2021

Savannah, GA

[Conference on Sustainability and Emerging Transportation Technology](#)

March 15, 2022

Irvine, CA

[American Society of Civil Engineers \(ASCE\) Geo-Congress 2022*](#)

March 20, 2022

Charlotte, NC

[18th Biennial National Harbor Safety Committee Conference](#)

June 13, 2022

Boston, MA

[National Aviation System Planning Symposium](#)

May 1, 2023

Irvine, California

[Webinars](#) – View upcoming webinars, suggest a webinar or add registration information

Past Webinars

- [You can get there from here - Developing an emissions roadmap for airports](#) – May 21, 2020
- [How It Affects You: IMO's January 1, 2020, Vessel Fuel Deadline](#) – August 13, 2019

- [Priming the Pump: Cleaner Approaches to Airport Ground Transportation](#) – May 8, 2019
- [Programs to Support the Deployment of the Electric Vehicle Infrastructure](#) – April 3, 2019
- [Understanding Airport Air Quality Management and Public Health](#) – December 12, 2018
- [The Alternative Fuels Corridor Program](#) – October 2018
- [Technology Changes Influencing the Decline of Vehicle Emissions](#) – April 25, 2018
- [Modeling the Relationship Between Vehicle Speed and Fuel Consumption](#) – March 14, 2018
- [Reducing the Impact of Lead Emissions at Airports](#) – April 25, 2017
- [What Makes an EV Incentive Program a Success?](#) – January 2017

TRB's Transportation Research Information Services (TRIS)

TRIS includes the [TRB Library](#) and the [TRIS Databases](#) (listed below) which are available free on TRB's website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.

In cooperation with your State DOT Library or Information Service, the TRB Library provides:

- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

- **Transportation Research International Documentation (TRID)** – trid.trb.org - The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- **Transportation Research Thesaurus (TRT)** – trt.trb.org – A tool to improve the indexing and retrieval of transportation information.
- **Research in Progress (RiP) Database** – rip.trb.org - Current or recently completed transportation research projects
- **Research Needs Statements (RNS)** – rns.trb.org - Research needs as identified by TRB Technical Activities standing committees
- **Publications Index (PubsIndex) Database** – pubsindex.trb.org - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

Contact or Questions: TRBLibrary@nas.edu