

JOINT TRANSPORTATION RESEARCH PROGRAM

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SPR-4509 Phase 2

2023

A Strategic Assessment of Needs and Opportunities for the Wider Adoption of Electric Vehicles in Indiana

Introduction

INDOT plans to invest nearly \$100 million to build a statewide electric vehicle (EV) charging network as part of the National Electric Vehicle Infrastructure Formula Program. SPR-4509 Phase-I identified energy EV charging deserts in Indiana for long-distance trips and further examined the charging stations' impact on EV long-distance trips in Indiana.

Findings

Using an agent-based simulation model, the number of charges, vehicle miles traveled, energy used during the trip, and energy used during charging were estimated for nine different cases. High EV daily charging demand areas in Indiana were shown in ArcGIS based on multiple scenarios of different charging station construction phases and EV market penetration rates.

Implementation

The study findings can inform the state's EV charging plan development.

Recommended Citation for Report

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