

Investment Guidelines and Policy Recommendations Methodology
*as part of the **Workforce Development** project for the*
National Renewable Energy Laboratory

March 27, 2025

Introduction

This technical memo details methodology relating to the Workforce Development project, a collaborative effort between the Virginia Department of Rail and Public Transportation (DRPT) and the National Renewable Energy Laboratory (NREL) as a continuation of the Commonwealth of Virginia's transit modernization efforts brought about by [HJ 542](#). This initiative aims to support transit agencies in their workforce development efforts by providing comprehensive guidance, assisting with employee recruitment, retention and reskilling, and addressing skill gaps such as identifying training needs and supporting the development of new programs.

This technical memo details the methodology relating to the following task of the Workforce Development project:

3. **Investment and Collaboration Analysis and Recommendations:** Gather a robust list of local, state, and federal workforce development opportunities (training programs, incentives, etc.) that can be incorporated by VA agencies.

The methodology herein can be updated annually or replicated by other interested states or organizations. Engagement with stakeholders including the local Clean Cities and Communities Coalition can account for and/or tailor to address state specific nuances.

Methodology

The Investment and Collaboration Analysis and Recommendations includes three key steps:

1. Research Investment and Collaboration Opportunities to understand what resources are available to address training needs identified in the Employee and Training Demand Analysis
2. Research Peer State Case Studies to identify replicable frameworks and understand what policies enable collaboration and workforce development efforts related to electric vehicles (EVs), hydrogen fuel cell electric vehicles (HFCEVs), and related charging infrastructure
3. Synthesize Findings within a final output report

This methodology can be repeated as often as necessary, as budgets change year over year.

Detailed methodology for each step can be found below.

1. Research Investment and Collaboration Opportunities: This step includes determining research priorities and researching state, federal, and national investment and collaboration opportunities.

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Steps taken to research investment and collaboration opportunities include the following:

A. Establish research priorities based upon the identified need for workforce development

1. Research priorities focused on three key areas relating to workforce development:
 - a. Virginia's State and Local-Level Workforce Development Programs – Apprenticeship programs, funding mechanisms, and other programs that support workforce development in public transit, electric vehicles, hydrogen fuel cell electric vehicles, and related charging infrastructure
 - b. Federal Workforce Development Initiatives – Federally supported programs, such as those from the U.S. Department of Energy (DOE) and Federal Transit Administration (FTA), that align with Virginia's workforce needs
 - c. National Workforce Development Initiatives – National programs, such as those from the National Science Foundation, that align with Virginia's workforce needs

B. Conduct research on state and local investment and collaboration opportunities

1. Review potential sources of funding for state-level opportunities focused on workforce development relating to EVs, HFCEVs, and related charging infrastructure in the state including but not limited to:
 - a. The State Agency that oversees Public Transportation
 - b. The Department of Workforce Development & Advancement
 - c. The State Council of Higher Education for Virginia
 - d. The Department of Housing and Community Development
 - e. The State Energy Office
 - f. The Department of Environmental Quality
 - g. The Department of Transportation
 - h. State Bills & Resolutions
2. Identified State Energy Office and Virginia Clean Cities efforts that support workforce training in EVs, HFCEVs, and related charging infrastructure

C. Conduct research on federal investment and collaboration opportunities

1. Review potential sources of funding for federal opportunities focused on workforce development relating to EVs, HFCEVs, and related charging infrastructure including but not limited to:
 - a. Department of Transportation
 - b. Department of Labor
 - c. Department of Education
 - d. Department of Energy
 - e. Disadvantaged Business Enterprise
 - f. Environmental Protection Agency
 - g. Federal Transit Agency
 - h. Federal Bills & Executive Orders
 - i. Joint Office of Energy and Transportation

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- j. National Science Foundation
2. Document the current known availability of potential sources of funding

D. Conduct research on national investment and collaboration opportunities

1. Review potential sources of funding for national opportunities focused on workforce development relating to EVs, HFCEVs, and related charging infrastructure including but not limited to:
 - a. Philanthropy (e.g., Rockefeller Foundation, Energy Foundation)
 - b. National Associations (e.g., National Governor's Association, and American Public Transportation Association)

E. Assess state, federal, and national investment and collaboration opportunities with relevant stakeholders

1. Identify a list of state, federal, and national stakeholders from organizations that may have funding available for investment and collaboration opportunities to assess and provide feedback on the research
2. Review the qualitative findings from the Task 2 interviews for information about state, federal, and national investment and collaboration opportunities

2. Research Peer State Case Studies: This step includes identifying peer states and researching workforce development case studies relating to EVs, HFCEVs, and related charging infrastructure.

Steps taken to research peer state case studies include the following:

A. Identify criteria for identifying a target set of peer states

1. Conduct a policy scan to identify criteria for identifying a target set of peer states in consultation with key stakeholders
 - a. Determine the policy or regulatory characteristic that best reflects the state of analysis (e.g., Virginia selected states with 'Dillon's Rule' as the criteria to identify peer states due to the similarity of stronger state government oversight of local governments including local transit agencies)
 - b. Align and affirm states selected as peer states (e.g., Virginia selected Arkansas, Alabama, Nevada, New Hampshire, and Vermont)

B. Research peer state case studies

1. Conduct research using an online search engine (Google Advanced Search) with the following criteria: workforce development OR program OR investment OR collaboration OR electric vehicle OR charging infrastructure OR hydrogen fuel cell "State"
 - a. Review the results of the workforce development initiatives which may include case studies on public-private partnerships, particularly those involving transit agencies, technical colleges, and private sector employers
 - b. Identify scalable models which could be replicated

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- c. Analyze policy frameworks that have facilitated effective collaborations between transit agencies, educators, and industry
2. Review the qualitative findings from the Task 2 Employee and Training Demand Analysis interviews for information on peer state case studies
3. Assess findings with stakeholders including Clean Cities and Communities Coalition

3. Synthesize Findings: Compile all quantitative and qualitative analysis within a report. NREL may provide the Virginia report as an example.

Steps taken to synthesize findings includes the following:

A. Detail all quantitative and qualitative analysis within a report according to the following outline:

1. Investment and Collaboration Opportunities
 - a. Table of investment and collaboration opportunities including 1) name of program and hyperlink, 2) type (state, federal, or national), 3) description and uses of funds, 4) other information (as applicable)
 - b. Summaries of the investment and collaboration opportunities identified
2. Peer State Case Studies
 - a. Profiles of relevant peer state case studies including hyperlinks
3. Policy Considerations
 - a. List of policy considerations including lessons learned, leading practices, and barriers to address sourced from the peer case studies and qualitative interview findings