

# Work Group Plan

Light-Duty ZEV

# Light-Duty ZEV

Work Group Plan | 3.30.2023

Each work group plan is divided into four main sections, including:

## NCCTP Background and Key Recommendations

The background section provides an overview of the stakeholder process that led to the preparation of the North Carolina Clean Transportation Plan (NCCTP). This section summarizes the key recommendations that must occur to collaboratively advance the work of the NCCTP.

## Work Group Supporting Strategies

In support of the NCCTP focus areas, the work groups will continue to meet, collaborate and dedicate time and energy to advance the supporting strategies outlined in this plan. This section highlights the specific ways the work group can continue to support the initiatives of the NCCTP and move the work forward. The strategies are organized to reflect the ideas generated by each work group under the four thematic focus areas and include a consolidated list of strategies that reflects the recurring ideas heard from multiple work groups. Individual work group strategies can be found following the consolidated list of strategies.

## Work Group Strategy Tables

The strategy tables are a collection of the strategies proposed by the work group during the NCCTP planning process. For every proposed strategy, additional detail is provided on 1) the key stakeholders best positioned to help move the strategy forward, 2) whether the strategy contributes directly or indirectly to equitable outcomes and 3) other beneficial information to consider when initiating the strategy.

## Work Group Next Steps

This section provides a general framework for how the work groups can continue to participate in the achievement of the NCCTP goals. The work groups are encouraged to continuously revise and update the work group plans as progress is made.

# Background and NCCTP Focus Areas

## Background

The North Carolina Clean Transportation Plan (NCCTP) is a guidance document that provides a coordinated strategy for accelerating decarbonization in the transportation sector. The plan outlines how North Carolina can prepare for a clean transportation future and provide equitable outcomes for everyone. The NCCTP was co-created with local, regional and state agencies; transportation providers; non-profit organizations; social justice and equity focused groups; environmentally focused groups; academic partners; clean cities coalitions; advocacy groups; utility providers; and private companies. While clean transportation efforts are happening all around our state, Executive Orders (E.O.) 80, 246, and 271 all encouraged a more coordinated strategy. In particular, E.O. 246 establishes goals for a 40 percent emission reduction and reaching 1.25 million zero-emission vehicles (ZEVs).

### Why We Need a Plan

**Transportation Impacts** – According to the 2022 North Carolina Department of Environmental Quality (NCDEQ) Green House Gas (GHG) Inventory, transportation emissions in North Carolina accounts for 36 percent of total GHG emission—the largest contributor in the state. 88 percent of these emissions are attributed to on-road vehicles, including passenger cars, delivery vehicles and freight trucks.

**Transportation Challenges** – Existing transportation system challenges and constraints, such as a rapidly growing population and demographic disparities in transportation availability, must be identified to understand how to equitably achieve reductions in transportation emission.

**Transportation Options**—The Deep Decarbonization Pathways Analysis demonstrated that a variety of transportation options, including reducing vehicle miles traveled, zero emission vehicles, and decarbonized fuels, can be used together to result in significant greenhouse gas reduction.

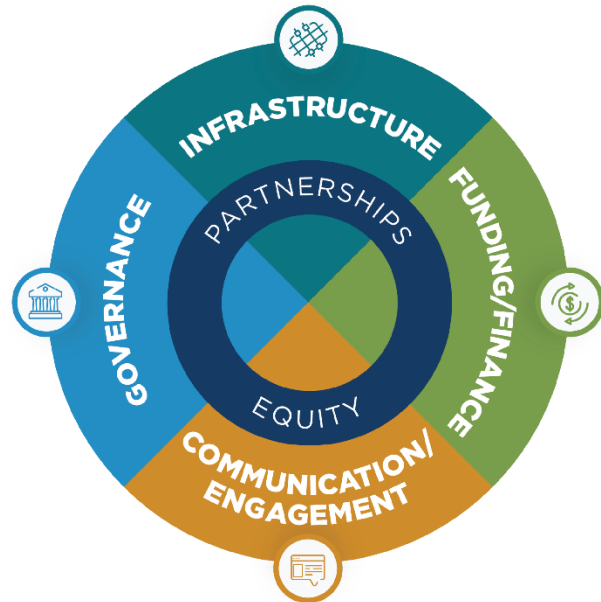
**Different Places have Different Needs**— Given North Carolina’s mix of geographies, our approach to clean transportation must be versatile and include options for rural, suburban and urban places. This requires an integrated strategy that reflects the needs and opportunities of each of these contexts.

**New and Emerging Funding**—New funding—including federal legislation, such as the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA)—create opportunities to advance clean transportation.

While NCDOT supported the planning process and many of the strategies will require the department’s leadership or participation, the NCCTP also offers public and private entities, as well as state, regional and local governments, a roadmap to activities for achieving an equitable clean transportation system for North Carolina. This work group plan represents a specific set of activities that the work group stakeholders might choose to move forward.

## Key Recommendations

The NCCTP identifies near-term strategies and actions organized around four focus areas: **Infrastructure**, **Funding and Finance**, **Communications and Engagement** and **Governance**. In addition, the NCCTP process identified key partnerships required to accelerate North Carolina’s clean transportation transition and elevate the importance of creating equitable outcomes. Key recommendations from the focus areas include:



**Create a dedicated clean transportation team**— This group will be dedicated to advancing the NCCTP objectives, implementing the plan and tracking progress.

**Align statewide policy through an interagency task force**—This taskforce will coordinate across state agencies to ensure internal alignment of North Carolina policies and reduce barriers to NCCTP implementation.

**Increase equitable outcomes in transportation planning projects**—Introducing new opportunities, empowering traditionally underserved communities in transportation decision-making and focusing on maximizing key indicators like improved access will lead to more equitable outcomes.

**Ensure access and affordability to clean transportation**—Policies and programs that promote access and affordability to clean transportation options will prioritize infrastructure investments for traditionally underserved communities.

**Evaluate and update project prioritization programs**—Bring opportunities identified in the NCCTP to the existing NCDOT Strategic Prioritization Office (SPOT) work group for consideration in the project evaluation process.

**Partner with utilities to promote clean transportation**—Partnering with electric utilities to promote clean energy and clean transportation options will ensure we’re “energy ready” and will promote effective pricing.

**Maximize existing funding to support clean transportation outcomes**—Modifying our approach to existing funding programs, such as the Congestion Mitigation and Air Quality (CMAQ), Carbon Reduction Program (CRP) and Diesel Emissions Reduction Act (DERA), can ensure existing dollars do as much as possible to support the clean transportation transition.

**Evaluate and apply for new funding that advances clean transportation outcomes**—The Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA) can be used to advance the priority strategies identified in the NCCTP.

**Evaluate and deploy clean transportation infrastructure to support all types of fleet vehicles and applications**—Investing in zero- and low-emission fueling infrastructure for all types of fleet vehicles makes possible the transition of fleets to clean transportation options.

**Expand transportation demand management strategies**—Applying transportation demand management programs as described in the VMT reduction toolkit will lessen our reliance on driving and support NCCTP goals.

**Establish a coordinated clean transportation communication strategy**—NCDOT will seek dedicated funding to support a coordinated communication strategy. Coordinated communications will increase awareness, help align resources and promote partnerships to advance the clean transportation initiative.

## Work Groups

The NCCTP planning process was intentionally inclusive. Throughout the NCCTP process, NCDOT was committed to the co-creation of the plan. While NCDOT and the NCDEQ served as support staff to five subject-matter work groups, over 220 state and national stakeholders participated in the process. These volunteer groups were composed of the wide variety of public and private stakeholders listed earlier in this section. The work groups worked collaboratively over six months through a series of meetings to develop ideas leading to the creation of these focused work group plans that address known challenges and leverage opportunities. This allowed the content of the plan to be largely driven by the experience, expertise and perspectives of a variety of interests and allowed participants to explore solution sets without limitations.

This work group plan focuses on the efforts conducted by the light-duty zero emission vehicle (ZEV) work group. While summaries of all the work groups are included below, the specific challenges addressed by light-duty ZEV work group are included at the end of this section.

### Medium- and Heavy-Duty (M/HD) ZEVs

These vehicles are heavier than light-duty vehicles and typically include school buses, public transit buses, freight vehicles and other fleet vehicles. Gasoline- and diesel-powered medium- and heavy-duty vehicles only account for a small portion of registered vehicles, but are responsible for significant greenhouse gas emissions and cause a significant amount of air pollution. The focus of this group included:

- Educating potential users about the unique needs of and supportive infrastructure for M/HD ZEVs.
- Increasing the availability and the pace of adoption of M/HD ZEVs.

### Vehicle Miles Traveled (VMT) Reduction

Managing travel demand and reducing vehicle miles traveled on North Carolina roads can be accomplished through a coordinated approach to transit, rail, bike, pedestrian and other non-motorized travel as well as land development considerations. The focus of this group included:

- Advancing the work of the VMT Reduction Task Force.
- Connecting planning efforts related to transit, bike/pedestrian, passenger rail and other non-vehicle transportation modes to clean transportation objectives.

### Fleet Transition

Fleet transition includes ways to switch large fleet operations from gasoline- and diesel-powered vehicles to zero- and low-emission fleet vehicles. The focus of this group included:

- Accelerating the pace at which state and local public entities transition to zero- or low-emission vehicles.
- Working with private entities to transition their fleets to zero- or low-emission vehicles.
- Increasing the number of zero- or low-emission school buses in use.

## Clean Transportation Infrastructure

North Carolina needs sufficient EV and alternative fuel infrastructure to support the private and public fleet transition to zero- and low-emission vehicles. The focus of this group included:

- Improving electric vehicle charging infrastructure, through existing programs such as the National Electric Vehicle Infrastructure program.
- Improving infrastructure associated with alternative fuels.
- Supporting future infrastructure improvements through mapping, siting and identification of gaps.

## Light-Duty Zero Emission Vehicles (ZEVs)

The light-duty ZEV work group plan focuses on the transition of passenger cars and light-duty ZEV. These may include vehicles from a range of fuel types, such as electric or hydrogen fuel cell. The focus of this group included:

- Accelerating the pace of transition from conventional gas-powered vehicles to ZEVs.
- Increasing ZEV availability and increasing consumer awareness.
- Advancing ZEV incentives and improving affordability.

### ***Identified Barriers***

Each subject matter work group met six times and discussed the potential objectives, needs and opportunities centered around a series of six cross-cutting themes: equitable access to clean transportation options, education and outreach opportunities, incentives and finance options, transportation influences on public health, economic and workforce development and recommended revisions to NC requirements and guidance. At the outset of this process, the light-duty ZEV work group was asked to identify barriers and challenges to advancing light-duty ZEV in the state of North Carolina. Through this discussion, the following barriers were identified:

- Needing more ZEV educational programs to communicate ZEV benefits and dispel myths and concerns (e.g. range anxiety, charge time, unclean fuel sources).
- Overcoming barriers to ZEV entry and access such as affordability and access to financing.
- Ensuring increased ZEV availability and accelerating the pace of transition from conventional gas-powered vehicles to ZEVs.

The focus of the work groups over the six months was to develop a set of strategies and actions that were needed to overcome these barriers. To maintain the momentum of the work group to identify and overcome barriers, continued support and continued cooperation of work group participants and stakeholders is needed. Maintaining momentum will require a coalition of support and continued cooperation. Therefore, the work groups are expected to continue their collaborations beyond the plan, with a renewed focus on advancing their individual work group plans.



## ***Participants***

The NCCTP benefitted greatly from the time and energy provided by its work group members. The following groups, agencies and organizations were represented as part of the light-duty ZEV work group.

Alliance for Automotive Innovation	NC Dept. of Commerce
Alliance for Transportation Electrification	NC Dept. of Environmental Quality (NCDEQ)
Blue Ridge Energy	NC Dept. of Transportation (NCDOT)
Chargepoint	NC Governor's Office
City of Wilmington	NC Justice Center
City of Winston-Salem	NC Sustainable Energy Association
Cyclum Renewables	North Carolina Electric Membership Corporation (NCEMC)
Duke Energy	Northwest Piedmont Rural Planning Organization (RPO)
EJ Policy Advisor	Piedmont Electric
EV Hybrid Noire	Regional Transportation Alliance (RTA)
Ford Motor Company	Roanoke Electric Cooperative
Generation180	Rocky River RPO
Haywood EMC	Senior Manager of Government Affairs of VinFast
Institute for Transportation Research and Education (ITRE)	Siemens
JM Family Enterprises (Toyota)	Southeast Energy Efficiency Alliance (SEEA)
Koulomb	Southern Alliance for Clean Energy (SACE)
NC Auto Dealers Association	Sunrun
NC Clean Energy Technology Center	Triangle J Council of Government (TJCOG)
NC Clean Energy Technology Center	Union Power Cooperative
NC Dept of Transportation (NCDOT) – Rail	

## Work Group Background

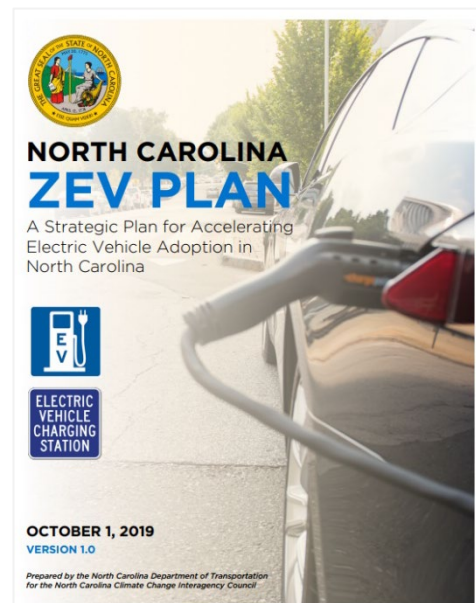
A light-duty zero emission vehicle (ZEV) is generally a small vehicle, which includes personal cars and trucks. Zero emission vehicles include both electric and plug-in hybrid vehicles and are a cleaner, more efficient means of moving goods and passengers. In 2018, light-duty gas vehicles accounted for 72 percent of greenhouse gas (GHG) emissions in the transportation sector. While the electrification of gas and diesel personal vehicles is only one component of the NCCTP, the achievement of the state's emissions reduction goals in the transportation sector will rely on a strong transition plan for light-duty vehicles.

## Aligned Initiatives

### 2019 North Carolina ZEV Plan

In 2018, Governor Roy Cooper signed [Executive Order 80](#), which called for a 40 percent reduction in statewide greenhouse gas emissions from 2005 levels by 2025 and set the state's first ZEV goal – 80,000 registered ZEVs by 2025.<sup>1</sup> The [2019 North Carolina ZEV Plan](#) proposed and documented a variety of strategies to achieve emission reductions and identified four action areas to support the adoption of ZEVs:

- **Education.** Educate across a variety of topics including pricing and affordability, vehicle range, charging cost, charging options, and availability of vehicles and charging infrastructure.
- **Convenience.** Increase ease and comfort of charging across the electric vehicle network to address concerns regarding charging range and replacement of traditional internal combustion engines.
- **Affordability.** Reduce the upfront costs through financial incentives. Creating a used-car market will assist in providing a variety of vehicles at more price points.
- **Policy.** Establish policies to promote electric vehicle adoption. Create state alliances and coalitions to encourage the continued investment in ZEVs.



The 2019 North Carolina ZEV Plan created a solid foundation for the identification of strategies specific to light-duty ZEVs for the work group.

---

<sup>1</sup> <https://governor.nc.gov/media/967/open>

## North Carolina Deep Decarbonization Pathways Analysis

As noted previously, the transportation sector is the largest source of greenhouse gas (GHG) emissions in North Carolina. According to the 2022 NCDEQ GHG Inventory, transportation emissions in North Carolina account for 36 percent of total GHG emissions—the largest contributor to GHG emissions in the state.<sup>2</sup> The [Deep Decarbonization Pathways Analysis](#) showed that transportation must reduce GHG emissions by between 79 and 87 percent for the state to achieve net zero by 2050.<sup>3</sup> The analysis identified five priority action areas:



Buildings



Transportation



Clean Electricity



Decarbonize Fuels



Carbon  
Sequestration

While North Carolina can achieve 2030 and 2050 climate targets in multiple ways, the Pathways Analysis highlights the similarities across all scenarios that would benefit the state:<sup>4</sup>

- Accelerate a transition to ZEVs and electric heat pumps in buildings
- Rapidly decarbonize electricity generation by scaling up renewable electricity sources and battery storage
- Encourage high levels of energy efficiency, such as adoption of efficient appliances and vehicles, improvement of building shells and reduction in VMT
- Support commercialization of decarbonized fuels—at minimum—to green hydrogen for industry and large trucks and explore pilots for advancing biofuels using sustainable biomass feedstock
- Reduce non-energy GHG emissions from industry, agriculture, waste and oil and gas systems
- Prioritize sustainable management of natural and working lands to enhance the critical role of carbon sequestration in helping achieve net-zero emissions
- Reduce fuel combustion while decarbonizing the economy to create co-benefits for air quality improvement

The Pathways Analysis confirmed the importance of accelerating the transition to ZEVs. The Light-Duty ZEV work group should leverage the findings and strategies in the Pathways Analysis to advance the goals of the NCCTP as they relate to infrastructure.

---

<sup>2</sup> <https://governor.nc.gov/media/3583/open>

<sup>3</sup> <https://governor.nc.gov/issues/environment>

<sup>4</sup> <https://governor.nc.gov/media/3572/open>

# Work Group Supporting Strategies

## Work Group Supporting Strategies

While the focus areas, described in the previous section, broadly consider the efforts needed to advance the goals of the NCCTP by the state of North Carolina, the specific ways in which the light-duty ZEV work group can engage with the advancement of the NCCTP in the near term are organized below under the four focus areas. A more detailed list of work group strategies can be found in the next section. These supporting strategies can be used in support of the eleven key recommendations that can be found in the [NCCTP Summary Report](#).

### Updating Governance Activities

*Governance activities include guidance that could occur at any level of government (local, regional, state or federal) including legislation, policy codes, ordinances and mechanisms that promote equitable outcomes.*

Enhanced standards and guidance will provide a framework for the transition to clean transportation options. Light-duty ZEV work group members may:

- Coordinate with other work groups to create a climate, health, equity and VMT reduction rating system for use in planning and analysis.
- Ensure alignment across work groups to meet light-duty ZEV work group strategies and ongoing ZEV state initiatives.

### Modernizing Funding and Finance Programs

*These programs include financial resources (public and private), funding programs (ex. State Transportation Improvement Program, grants, municipal Capital Improvement Plans) and financing tools that support equitable outcomes and implementation.*

New funding sources will be needed to implement clean transportation options. Light-duty ZEV work group members may:

- Evaluate alternative revenue sources to replace fuel taxes and fund transportation, including a vehicle use tax or state carbon tax.

Funding and financing incentives can support the implementation of the clean transportation system.

Light-duty ZEV work group members may:

- Investigate and identify tax incentives (e.g. income-tiered or capped clean transportation preparation tax credits and point of sale incentives) for used electric vehicles beyond the Inflation Reduction Act incentives.
- Encourage the provision of stipends, tax benefits or other support for traditionally underserved people to affordably own or lease clean transportation vehicles.

Technical assistance is essential to support the transition to clean transportation solutions especially for under-resourced communities. Light-duty ZEV work group members may:

- Provide technical assistance and support for community members and disadvantaged business enterprises to participate in zero-emission vehicle advancements.

## Implementing More Clean Transportation Infrastructure

*Capital investment resulting in the equitable implementation of increased capacity and connectivity of our transportation system including EV charging, modernization of electric grid, active transportation and transit supportive infrastructure.*

To support expanded clean transportation options and reduced VMT especially in traditionally underserved communities, light-duty ZEV work group members may:

- Strategize how active transportation infrastructure and safety design elements can be integrated into current road maintenance practices.
- Support rideshare and rental car fleets through the identification of and adoption of EV incentives.

The implementation of publicly available charging and fueling infrastructure is essential for support of an expanding zero-emission vehicle fleet. Light-duty ZEV work group members may:

- Coordinate and support the investment in charging stations accommodating medium- and heavy-duty vehicles with the M/HD ZEV work group.
- Strategize and pursue rapid electrification of the state light-duty fleet.

## Communicating the Plan and Engaging People

*Methods to increase equitable engagement and empower public, private, and non-profit effectiveness AND methods to directly engage and involve stakeholders, general public and traditionally underserved demographic cohorts.*

A coordinated Clean Transportation Communication Campaign will help achieve statewide objectives through increased understanding and access to information. Light-duty ZEV work group members may:

- Assist or support the creation of a coordinated statewide communication campaign and web portal with publicly accessible resources and tools for educators and local planners to use for education and planning projects. These resources and tools may include:
  - A clean transportation and ZEV education and outreach toolkit, with model curricula and an Activities Guide for equitable engagement. This toolkit should be developed with the M/HD ZEV and fleet transition work groups.
  - A repository of light-duty ZEV funding opportunities and incentives along with public facing progress reports (dashboards) with clear benchmarks and mechanisms for public feedback.
- Focus on media and education efforts, such as electric vehicle demonstrations, to highlight zero-emission vehicle benefits to community members and disadvantaged business enterprises.

New training opportunities will accelerate the pace of clean transportation transitions and generate new workforce opportunities. Light-duty ZEV work group members may:

- Coordinate with the clean transportation infrastructure, M/HD ZEV, and fleet transition work groups to develop a zero-emission vehicle workforce development strategy. This strategy should aim to provide targeted EV repair and maintenance and electrical infrastructure training programs for traditionally underserved communities. Virtual options should be considered where possible.

- The Light-Duty ZEV work group will focus on strategizing training programs for light-duty EV repair and maintenance.
- Participate in the identification of resource materials to inform tailored training materials surrounding electric vehicle repair, servicing, and maintenance.
- Contribute to the development of training materials tailored to traditionally underserved communities.
- Participate in training activities as appropriate.

Accelerating North Carolina's pace of transition to clean transportation options will require state agencies to collaborate with a variety of groups. Light-duty ZEV work group members may:

- Assist with identifying key partnership opportunities and making connections.
- Work with community-based organizations (CBOs) and community champions to help bridge communication gaps and ensure traditionally underserved communities and disadvantaged business enterprises experience clean transportation benefits.
- Assist with connecting key entities with coordinated communication plan opportunities.
- Serve as an ambassador to the NCCTP by representing key messaging at appropriate functions and industry events.

# Work Group Strategy Tables



## Work Group Strategy Tables

### Orientation

The following pages contain the proposed strategies identified by the work group. The various strategies listed are not directly endorsed by state agencies and do not necessarily represent a consensus proposal by the work group participants or the NCCTP Advisory Committee. Not all strategies listed are necessarily supported by all work group participants or all members of the NCCTP Advisory Committee. The work group plan organizes and reflects the ideas generated by the work group under the four thematic focus areas: **Governance**, **Infrastructure**, **Funding and Finance** and **Communications and Engagement**. The strategies listed in each table are specific to each group’s work group plan.

For every strategy, additional detail is provided on 1) the key stakeholders best positioned to help move the strategy forward, 2) if the strategy contributes directly or indirectly to equitable outcomes, and 3) what actions are required to initiate the strategy. The ideas are listed in no particular order.

Example Table

Governance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-4	Create design guidance for electric vehicle charging sites that integrates active transportation, transit, ADA access, and resiliency.	NCDOT, MPOs/RPOs, Local Government	Indirect	Establish task force or work group to identify uniform/best practices.

### Strategy Table Summary

This work group has identified the following strategies:



Governance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-1	Develop model codes that integrate and incentivize clean energy/transportation infrastructure.	NCDOT, MPOs/RPOs, Local Government	Indirect	Support the creation of NC best practices that includes a comprehensive set of best practices and model codes in support of clean transportation goals.
LD-2	Supplement level of service with equity, health, vehicle miles (VMT) traveled and greenhouse gas analyses for capital transportation and land use projects.	NCDOT, Local Government, MPOs/RPOs, Private Developers	Indirect	Update analysis requirements and evaluation metrics of plans and programs by requiring equity, health, GHG, and VMT considerations.
LD-3	Create a climate and health rating system for use in planning and analysis.	NCDEQ, NCDOT	Indirect	Adopt a consistent method/tool of addressing climate and health evaluations.
LD-4	Create design guidance for electric vehicle charging sites that integrates active transportation, transit, ADA access, and resiliency.	NCDOT, MPOs/RPOs, Local Government	Indirect	Establish task force or work group to identify uniform/best practices.
LD-5	Update development/building codes to require electric vehicle charging infrastructure.	Local Government, North Carolina Building Code Council, NCDOT	Indirect	Identify current limitations associated with building code requirements as they relate to electric vehicle charging infrastructure.
LD-6	Allow municipalities to establish road designs for state-maintained streets within their jurisdiction.	NCDOT, Local Government	Indirect	Reduce barriers to implementing complete streets on state-maintained streets.
LD-7	Modernize statewide procurement procedures to eliminate barriers to/promote electric vehicles.	NCDOT, Utility Providers, Local Government	Direct	This requires revisions to internal procurement practices.
LD-8	Perform a statewide clean transportation policy diagnostic and modernization effort to ensure alignment across departments and divisions.	NCDOT	Indirect	Inventory and evaluate existing policy to reveal conflicts and modernization opportunities.
LD-9	Investigate potential policies such as clean cars, direct sales and service, EV-first state procurement, etc.	Legislative, State Government	Indirect	This requires revisions to internal procurement practices.
LD-10	Address the lack of home charging access in multi-unit dwellings and for consumers lacking off-street parking through policy, incentives, and partnerships.	Local Government, Private Developers, Utility Providers	Direct	This will require public and private investment and the identification of appropriate funding sources..

Infrastructure				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-11	Create incentives to upgrade the electrical grid and TDM (travel demand management) measure.	NCDOT, Local Government, Utility Providers, Private Developers, Corporations, Non-Profits	Direct	This will require public and private investment and the identification of appropriate funding sources.

Infrastructure				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-12	Create a program to transition existing bus fleets to EV.	NCDPI, MFM	Indirect	Reduce barriers and create new incentives or funding programs to transition bus fleets.
LD-13	Create more park and ride facilities with charging infrastructure throughout the state served by reliable public transit to reduce VMT and provide charging opportunities.	NCDOT, Transit Agencies	Indirect	More funding is required to accelerate the pace of implementation.
LD-14	Create a statewide plan for DC fast charger placement to help address range anxiety.	NCDOT	Indirect	Assemble initiative leaders to identify communication strategy.
LD-15	Allow and encourage competition within charging infrastructure provision to avoid monopolies and moderate costs.	Legislative	Indirect	Inventory and evaluate existing policy to reveal conflicts and modernization opportunities.
LD-16	Improve permitting and right-of-way (ROW) processes for charging infrastructure.	State Government, Local Government, NCDOT	Indirect	Coordinate with municipalities to understand needs.

Funding/Finance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-17	Adopt EV incentives for rideshare and rental car fleets.	NCDOT, Other State Agencies, Corporations, Non-Profits	Indirect	Industry cooperation, legislative actions and policy revisions are likely required.
LD-18	Provide income tiered or capped clean transportation preparation tax credits.	Legislative	Direct	Industry cooperation, legislative actions and policy revisions are likely required.
LD-19	Create tax incentives for used EV's to support a secondary market.	Legislative	Direct	This topic should be further researched and considered in NC as a potential method to incentivize clean transportation options.
LD-20	Pursue financial policies that work to remove high-emitting older light duty vehicles from the road, such as scrappage programs/"cash for clunkers" or imposing higher fees on vehicles beyond their useful life period.	Legislative	Indirect	Industry cooperation, legislative actions and policy revisions are likely required.
LD-21	Provide point of sale incentives for traditionally underserved community buyers.	Legislative, Car Dealerships	Direct	Industry cooperation, legislative actions and policy revisions are likely required.
LD-22	Pursue rapid electrification of the state light duty fleet.	State Government	Indirect	Industry cooperation, legislative actions and policy revisions are likely required.
LD-23	Provide technical support to local communities and employers to secure grants and third-party funding to support EV advancements.	State Government, MPOs, RPOs	Indirect	Create technical documents to empower local communities and employers to seek EV funding.

Funding/Finance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-24	Develop funding programs to install charging infrastructure in traditionally underserved communities, including consumer incentives.	State Government	Indirect	Investing in traditionally underserved areas to enhance conditions and offer emerging opportunities that result in more equitable outcomes.
LD-25	Study the transition from a fuel tax to an alternative revenue source to fund transportation, evaluating options including a vehicle use tax or state carbon tax.	Legislative	Direct	This topic should be further researched and considered in NC as a potential method to incentivize clean transportation options.

Communication/Engagement				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-26	Partner with non-profits to educate, promote, and expose rural and traditionally underserved communities to EVs, tailoring the messaging by audience.	NCDOT, NCDEQ, Non-Profits	Direct	This is a critical ingredient of a coordination communication strategy.
LD-27	Design a fleet operator strategy to show EV total-cost-of-ownership, case studies, incentives and purchasing collaboratives.	NCDEQ, Non-Profits, Utility Providers, Fleet Owners/Operators	Indirect	Investigate existing model programs from around the country and tailor to NC.
LD-28	Invest and promote clean transportation, workforce training at community colleges, historically black colleges or universities (HBCUs) and other relevant training institutions.	State Government, NCDOT, MPOs/RPOs, Local Government, Non-Profits	Direct	This will require public and private investment and the identification of appropriate funding sources.
LD-29	Support aligned coalitions to share information and increase public awareness.	State Government, Non-Profits	Indirect	Create tailored resources for a wide audience and leverage existing networks as a part of the promotion strategy.
LD-30	Engage traditionally underserved communities to identify priorities and promote awareness.	State Government, Non-Profits, Local Government, MPOs/RPOs	Direct	This is a critical ingredient of a coordination communication strategy.
LD-31	Hold federal funding workshops to help communities/groups to access federal funding programs.	State Government	Indirect	Provide technical support to assist with application processes.
LD-32	Agree on methods to identify traditionally underserved communities.	State Government	Direct	This is a critical ingredient of a coordination communication strategy.
LD-33	Create information campaigns with messaging tailored to rural communities and to traditionally underserved communities.	NCDOT, MPOs/RPOs, Local Government, Non-Profits	Direct	Create tailored resources for a wide audience and leverage community leaders as a part of the promotion strategy.
LD-34	Develop a communication and awareness campaign using a combination of social media, literature, and demonstrations.	State Government, Non-Profits	Indirect	Create tailored resources for a wide audience and coordinate

## Communication/Engagement

ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
LD-35	Create a state marketing campaign to showcase NC to innovative businesses and prospective residents as an EV friendly state.	State Government, Chamber of Commerce, Utility Providers	Indirect	with media outlets to communicate concise message. Create tailored resources for a wide audience and coordinate with media outlets to communicate concise message.
LD-36	Establish a media campaign to highlight the economic benefits of migrating away from fossil fuels.	State Government, Chamber of Commerce	Indirect	Create tailored resources for a wide audience that reflect the goals of the NCCTP.

# Next Steps

## Next Steps

This work group plan offers the beginnings of what will be an ongoing effort to carry forward the goals of the NCCTP. The work groups are anticipated to continue their work beyond completion of the NCCTP. The following actions act as the preliminary steps for work groups:

- The newly proposed NCDOT Clean Transportation Team will serve as a resource to all five work groups.
- The work group will choose a chair from among its members.
- The work group will establish a calendar for Work Group Plan activities.
- The work group will identify an agreed upon schedule for meeting (early expectations include meeting on a quarterly basis).
- The work group will solidify work group membership, which may extend beyond previously engaged work group members to include additional individuals or groups.
- On occasion, the work group will provide continued leadership for combined work group activities.
- The work group will develop an approach for supporting the NCCTP focus areas and provide updates to the NCDOT Clean Transportation Team and Interagency Task Force for annual reporting purposes.