

Work Group Plan

Fleet Transition

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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.

NCCTP Background and Key Recommendations

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.

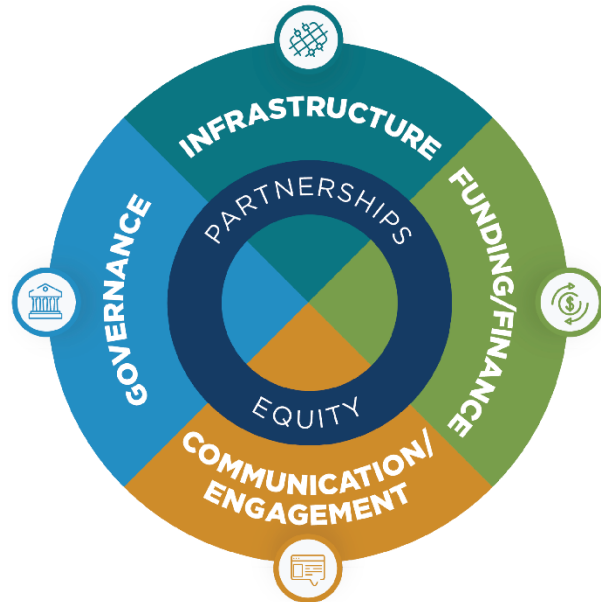
Different Places have Different Needs— Given North Carolina’s mix of geographies, our approach to clean transportation must be versatile and include options for rural, suburban and urban places. This requires an integrated strategy that reflects the needs and opportunities of each of these contexts.

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 fleet transition work group. While summaries of all the work groups are included below, the specific challenges addressed by fleet transition work group are included at the end of this section.

Light-Duty Zero Emission Vehicles (ZEVs)

These are generally smaller vehicles, including personal cars and trucks that have zero-emission characteristics. 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.

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.

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.

Fleet Transition

The Fleet transition work group plan focuses on developing a transition plan for zero- and low-emission fleet vehicles. The main objective of the Fleet transition work group was to identify effective strategies to transition large vehicle fleet operations to zero- and low-emission fleet vehicles, which includes both private and public fleets.

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.

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 fleet transition work group was asked to identify barriers and challenges to advancing fleet transition in the state of North Carolina. Through this discussion, the following barriers were identified:

- Increasing the capacity and resources for schools to participate in electrification of school buses especially in traditionally underserved communities.
- Addressing barriers faced by private industries to transition fleets to ZEVs such as affordability and a lack of technical support to secure funding.
- Accelerating the pace at which state and local public entities transition to zero- or low-emission vehicles.

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 fleet transition work group.

Advanced Energy Economy

Brunswick EMC

Chargepoint

City of Raleigh

City of Wilmington

Cyclum Renewables

Duke Energy

Environmental Justice (EJ) Policy Advisor

Generation180

Institute for Transportation Research and Education (ITRE)

Koulomb

NC Clean Energy Technology Center

NC Conservation Network

NC Dept. of Administration

NC Dept. of Transportation

Piedmont Electric

Roanoke Electric Cooperative

Schneider Electric

Southeast Energy Efficiency Alliance (SEEA)

Volvo

Background

In the state of North Carolina, the transportation sector makes up approximately 36 percent of greenhouse gas (GHG) emissions. A continued focus at the municipal and state levels has been on fleet transition to convert government or business gas- or diesel-powered vehicles to zero- or low-emission vehicles. As the market for zero- and low-emission vehicles expands, the usage of these vehicles within North Carolina's state and local governments have also increased. The commitment to transition the State motor fleet to zero-emission technologies and vehicles is prioritized in the purchase or lease of ZEVs whenever feasible. At the municipal level, smaller-scale fleet operators and transit agencies are already evaluating or committing to transitioning fleet vehicles to zero- or low-emission vehicles.

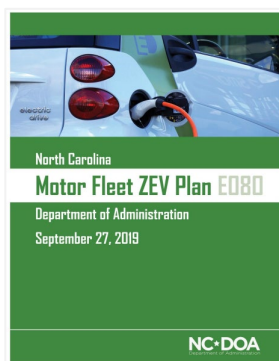
Private companies like Amazon and Fed Ex are also moving towards vehicle electrification. By 2030, Amazon is committing to 100,000 electric delivery vehicles on the road. Fed Ex has committed to transform its entire pickup and delivery fleet to all-electric by 2040. The electrification of both private and public fleets will help advance North Carolina's goals.

Aligned Initiatives

Motor Fleet Zero Emission Vehicle (ZEV) Plan

In 2019, the North Carolina Department of Administration published the [Motor Fleet Zero Emission Vehicle \(ZEV\) Plan](#) as directed by Governor Roy Cooper in Executive Order 80.¹ In 2022, the [Motor Fleet ZEV Update](#) provides an update on the actions underway to increase ZEVs in the state motor fleet. The report is updated annually to address changes in electric vehicle availability and supporting infrastructure and includes new and existing technologies, vehicle demand, and infrastructure needs. The 2022 report outlines clear steps to transition the statewide fleet to electric vehicles. The actions and strategies identified in the Motor Fleet ZEV Plan and Updates were used as a framework to generate strategies of the fleet transition Work Plan.

As of Fiscal Year 2022, the Division of Motor Fleet Management (MFM) replaced 144 eligible vehicles with zero-emission vehicles.² In the next fiscal year, over 500 vehicles are eligible for replacement. As of October 2022, hybrid vehicles make up over 67 percent of the vehicles purchased in Fiscal Year 2022 by the Division of Motor Fleet vehicles.



¹ <https://deq.nc.gov/media/14610/download>

² <https://ncadmin.nc.gov/about-doa/sustainability/zero-emissions-vehicles>

North Carolina Deep Decarbonization Pathways Analysis

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.³ 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 2050.⁴ 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:⁵

- 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 fleet transition work group should leverage the findings and strategies in the Pathways Analysis to advance the goals of the NCCTP as they relate to the shift of public and private fleets to zero emission vehicles.

³ <https://governor.nc.gov/media/3583/open>

⁴ <https://governor.nc.gov/issues/environment>

⁵ <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 fleet transition 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.

Achieving the state's clean transportation goals will require revisions to existing policies, requirements, and procedures. Fleet transition work group members may:

- Assist in the removal of barriers to the acquisition and implementation of fleet electrification.
- Act as an accountability group for policy or decisionmakers.
- Advocate at the local government level to encourage the development of policies and programs to advance and improve the electrification of fleets.
- Support the modernization of statewide procurement procedures to eliminate barriers to and promote EV purchases, including changes to current regulation regarding school bus fleet purchase schedule

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

- Coordinate with all work groups to create a climate, health, equity and VMT reduction rating system for use in planning and analysis.
- Ensure alignment to meet respective work group strategies and ongoing and future electrified fleet 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.

Funding and financing incentives can support the implementation of the clean transportation system. Fleet transition work group members may:

- Evaluate strategies to decrease the cost of fleet transition and create a program to assist business-owners, especially disadvantaged business owners, with the capital cost of transition.

To better support the implementation of clean transportation options, changes will be needed in the prioritization of current and newly available funding options. Fleet transition work group members may:

- Support investment in the conversion of the state fleet to clean transportation alternatives.

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

- Assess which government fleets are best suited for electrification and identify a supportive funding and education strategy.
- Establish a technical support system aimed to assist traditionally underserved communities and disadvantaged business enterprises to secure fleet transition aligned grants and provide technical support for securing fleet transition advancement opportunities which could include grants.

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 encourage fleet conversion to clean transportation options, fleet transition work group members may:

- Support funding and prioritization of the transition of school and transit bus fleets and supporting infrastructure to clean transportation alternatives.
- Encourage the investment in charging infrastructure to support all types of fleet vehicles and applications.
- Support the identification and creation of zero-emission delivery zones in traditionally underserved communities or areas with existing air quality concerns.

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. Fleet transition 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. These resources and tools may include:
 - A clean transportation and fleet transition education and outreach toolkit, with model curricula and an Activities Guide for equitable engagement. This toolkit should be developed with the light-duty ZEV and M/HD ZEV work groups.
 - A repository of fleet transition funding opportunities along with public facing progress reports (dashboards) with clear benchmarks and mechanisms for public feedback. This resource should be developed with the M/HD work group.
 - A tool to help fleet managers calculate the total cost of transitioning to an electrified fleet.
- Focus on media and education efforts to highlight fleet electrification benefits to disadvantaged business enterprises.

New training opportunities will accelerate the pace of clean transportation transitions and generate new workforce opportunities. Fleet transition work group members may:

- Coordinate with the light-duty ZEV, M/HD ZEV, and infrastructure work groups to develop a zero-emission vehicle workforce development strategy. This strategy should aim to provide targeted EV fleet management and maintenance and electrical infrastructure training programs for traditionally underserved communities. Virtual options should be considered where possible.
- Participate in the identification of resource materials to inform tailored training materials surrounding fleet management 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. Fleet transition work group members may:

- Partner with industry to embrace the electrification of fleets.
- 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.
- 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
FT-1	Create programs and strategies that decrease cost of fleet transition.	Legislative, NCDOT, Fleet Owners/Operators	Indirect	Identify legislative barriers and seek appropriate revisions.

Strategy Table Summary

This work group has identified the following strategies:



Governance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
FT-1	Create programs and strategies that decrease cost of fleet transition.	Legislative, NCDOT, Fleet Owners/Operators	Indirect	Identify legislative barriers and seek appropriate revisions.
FT-2	Develop policies and programs that ensure access and affordability to charging infrastructure for traditionally underserved communities.	Local Government, MPOs/RPOs, NCDOT, Traditionally Underserved Communities	Direct	Coordinate with traditionally underserved communities to understand needs.
FT-3	Modernize policies and programs to encourage transitioning light and medium to heavy-duty vehicles to EV throughout the state.	Legislative, NCDOT, MFM	Indirect	Initiate policy diagnostic to understand current opportunities to modernize.
FT-4	Update 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.
FT-5	Prioritize clean energy fleet transitions that have the greatest return on investment (ROI).	Fleet Owners/Operators, MFM, Local Government, NCDOT	Indirect	Conduct fleet inventory assessment.
FT-6	Create prioritization plan assessing which government fleets are best suited for electrification and identify a supportive funding strategy.	MFM, NCDOT	Indirect	Identify lead agency to undergo prioritization plan.
FT-7	Eliminate scrappage requirements from state fleet transition incentives.	MFM	Indirect	Identify legislative and departmental policy barriers and seek appropriate revisions.
FT-8	Expand and support EV Make Ready programs via NC Utilities Commission.	NC Utilities Commission	Indirect	
FT-9	Include other clean fuels in incentives to allow for broader reductions in emissions.	Legislative	Indirect	Identify economic development incentives with clean transportation and supporting market sectors.
FT-10	Add vehicle miles traveled and greenhouse gas reduction analysis to required transportation studies.	NCDOT, Local Government, MPOs/RPOs, private developers	Indirect	Revise guidance on transportation planning document to establish guidelines.
FT-11	Include health impacts in prioritization performance measures for local and state funding programs (including Strategic Prioritization funding).	Legislative, NCDOT	Indirect	Define the role and metrics for health associated impacts in evaluation criteria.
FT-12	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.
FT-13	Supplement level of service with vehicle miles traveled and greenhouse gas analyses for capital transportation and land use projects.	MPOs/RPOs, Local Government, NCDOT	Indirect	Identify best practices, establish agreed upon methods, and include in required studies, plans and programs.
FT-14	Create a state guide for electric vehicle charging sites that integrates active transportation and transit and requires resiliency.	NCDOT, Local Government, Private Developers	Indirect	Establish task force or work group to identify uniform/best practices.
FT-15	Promote/incentivize fleet rightsizing, take-home vehicles, and at-home charging.	NCDOT, Local Government, Private Developers		

Governance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
FT-16	Require economic development incentives to include clean transportation requirements.	Local Government, NCDOT, Private Developers	Indirect	Identify economic development incentives with clean transportation and supporting market sectors.
FT-17	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.
FT-18	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.
FT-19	Create model ordinance language for medium and heavy-duty vehicle idling.	NCDOT	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.

Infrastructure				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
FT-20	Create an equitable distribution of charging infrastructure.	NCDOT	Direct	Investing in traditionally underserved areas to enhance conditions and offer emerging opportunities that result in more equitable outcomes.
FT-21	Consider/create a leasing program to assist with capital cost of transition hardware that cannot afford to buy outright.	NCDOT	Direct	This will require public and private investment and the identification of appropriate funding sources.
FT-22	Create a process for continued planning of infrastructure deployment across the state after NEVI.	NCDOT	Indirect	Identify next steps for infrastructure deployment.
FT-23	Include consideration of vehicle-to-grid capability in demand rate setting and other utility policies.	Utilities	Indirect	This will require public and private investment and the identification of appropriate funding sources.
FT-24	Expand existing utility programs to advance expanded infrastructure including line extensions and on bill charging options.	Utilities	Indirect	This will require public and private investment and the identification of appropriate funding sources.
FT-25	Streamline and expedite fleet depot infrastructure requests. Set best practices for how utilities process these requests.	Fleet Operators/Owners, Utilities	Indirect	
FT-26	Create model memorandums of understanding for fleets to share infrastructure.	NCDOT	Indirect	Support the creation of NC best practices that includes a comprehensive set of best practices and model codes in

Infrastructure				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
				support of clean transportation goals.
FT-27	Expand energy storage infrastructure to support electrification.	Private Developers, Utilities	Indirect	Investing in traditionally underserved areas to enhance conditions and offer emerging opportunities that result in more equitable outcomes.
FT-28	Invest in and plan for charging sites to accommodate higher capacities in support of changing/increasing demand.	Local Government, Private Developers	Indirect	This will require monitoring trends, researching impacts, and enhanced engagement activities.

Funding/Finance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
FT-29	Incentivize removing pre-2010 trucks from fleets via rebates, exchange and/or voucher programs, and tax incentives.	MFM	Indirect	
FT-30	Identify a new funding strategy that limits dependence on vehicle fuel tax to fund NC transportation (consider vehicle use tax and carbon tax alternatives).	Legislative	Indirect	Consider best practices from across the nation to inform creation of new revenue stream.
FT-31	Provide technical assistance to communities and organizations for grant and program applications.	NCDOT	Indirect	Identify grant and funding opportunities. Host informational sessions to provide context to funding opportunities.
FT-32	Provide funding for local governments to regularly create maintenance assessment plans for existing charging and electrification infrastructure (similar to funding programs for bike-ped plans, etc.)	Local Government, MPOs/RPOs, NCDOT	Indirect	Identify revenue stream to support maintenance assistance program.

Communication/Engagement				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
FT-33	Prioritize utility involvement to expand charging and reform rates.	Utilities	Indirect	This is a critical ingredient of a coordination communication strategy.
FT-34	Create a central repository with NCDOT for information on fleet transition funding opportunities.	NCDOT, Fleet Owners/Operators, Local Government	Indirect	Create space to update and maintain information on funding opportunities.
FT-35	As state, compile lists of opportunities and make it available to eligible entities; act as facilitator when not the main recipient of funding.	NCDOT	Indirect	
FT-36	Share information with fleet operators on benefits of transition in traditionally underserved communities, emphasizing cost savings and lower total cost of ownership.	Fleet Owners/Operators, Local Government, NCDOT	Direct	Create tailored resources for fleet operators/owners with specific

Communication/Engagement

ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
				regard to rural and low-income urban communities.
FT-37	Create a central repository with NCDOT for awareness information on fleet transition data resources.	NCDOT	Indirect	Create understandable and accessible information that communicates progress on relevant metrics.
FT-38	Educate people on the economic development impacts of fleet transition.	Local Government, MPOs/RPOs, NCDOT, Non-Profits, Corporations	Indirect	Create tailored resources that emphasize the economic impacts associated with fleet transition.
FT-39	Provide a website or tool to help fleet managers calculate the total cost of transitioning to an electrified fleet.	NCDOT	Indirect	Develop understandable and accessible information that communicates relevant metrics.
FT-40	Encourage early adopters to provide peer to peer guidance on their experience transitioning their fleets.	Fleet Owners/Operators, Local Government, MPOs/RPOs, NCDOT	Indirect	This is a critical ingredient of a coordination communication strategy.
FT-41	Leverage ongoing education and outreach from existing groups that are already passionate and working towards fleet transition and electrification.	NCDOT	Indirect	Leverage existing networks and organization to promote shared understanding and effective engagement.
FT-42	Develop and share model fleet transition programs and best practices.	NCDOT	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.
FT-43	Work with utility providers to develop EV specific rate schedules.	Utilities, Local Government, NCDOT	Indirect	Leverage existing partnerships.
FT-44	Create a statewide digital guide for fleet transition, updating as new resources become available and including different stakeholders and best practices.	NCDOT	Indirect	Create understandable and accessible information with input from a variety of stakeholders.
FT-45	Promote awareness through a coordinated communication campaign and through hands on events (ex: "Ride and Drive").	NCDOT	Indirect	Identify funds to support the creation of a digital communication tool. Identify channels to distribute campaign materials.

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.
- Given their priority, 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.