TWG Meeting Topics and Schedule

Priority Conversations:
1) Supporting EV and EV charging expansion (meeting 2/26)
2) Transitioning from single occupancy vehicles in rural and urban/suburban areas – reduce VMT (meeting 3/13)
3) Investigating alternative fuels – informed by medium- and heavy-duty roadmap (meeting 4/10)
4) Adaptation and resilience (meeting TBD)

Cross Cutting issues for further discussion:
1) Construction materials
2) Land-use
3) Marine emissions
4) Electricity demand management

MAINE
WON'T WAIT

Meeting Agenda

1. Review of the data: transportation emissions in Maine
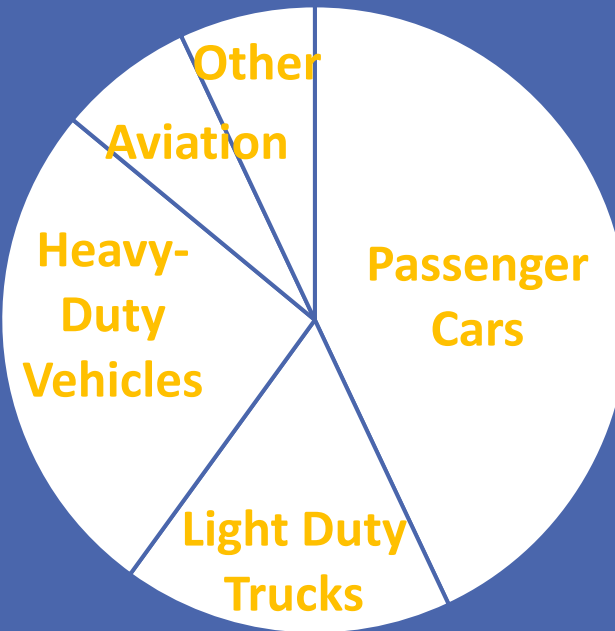2. Recap of the completed and ongoing work
3. Identify policy priorities

GHG Emissions from Transportation Sector

MAINE'S TRANSPORTATION SECTOR GHG EMISSIONS

Other

Aviation

Heavy-Duty Vehicles

Passenger Cars

Light Duty Trucks

Passenger cars and light-duty trucks make up 60% of all emissions for the sector.

49%

Note: when MWW was first released in 2021, transportation emissions were 54% of the state's emissions.

MAINE
WON'T WAIT

Synapse modeling for MWW

- Modeling performed to inform MWW strategies
- Maps out how Maine can meet GHG emission reduction goals
- Included baseline scenario and 4 decarbonization scenarios (T1-T4)

T4 (All Strategies to meet 2030 emissions target)	☐ 85% of new LDV sales are electric by 2030
	☐ 55% of new HDV sales are zero emissions by 2030
	☐ VMT per LDV declines 20% by 2030
	☐ VMT per HDV declines 4% by 2030
	☐ Fuel efficiency reaches 42 MPG for new cars and 30 MPG for new light trucks by 2050
	☐ Managed EV charging

MWW goals informed by Synapse Modeling

| Sector	Metric	2025	2030	2050
Transportation	Number of Light-duty EVs on the Road	41,000	219,000	904,000
	EV Share of New Light-duty Vehicle Sales	28%	85%	100%
	Reduction in Light-duty VMT per Vehicle	10%	20%	20%
	ZEV Share of New Heavy-duty Vehicle Sales	12%	55%	100%
	Reduction in Heavy-duty VMT per Vehicle	2%	4%	4%

Clean Transportation Roadmap Modeling

- Detailed pathways towards electrification

- Maine Won't Wait curve is the adoption needed to meet state's GHG targets

- ACCII curves provide estimates of what automakers will be mandated to deliver after adoption of standards

- Cadmus sees ACCII curves as most likely path toward electrification

Clean Transportation Roadmap Modeling – Light Duty

Figure 12. Scenarios for Light-Duty EV Deployment in Maine, New Registrations (left), Stock (right)
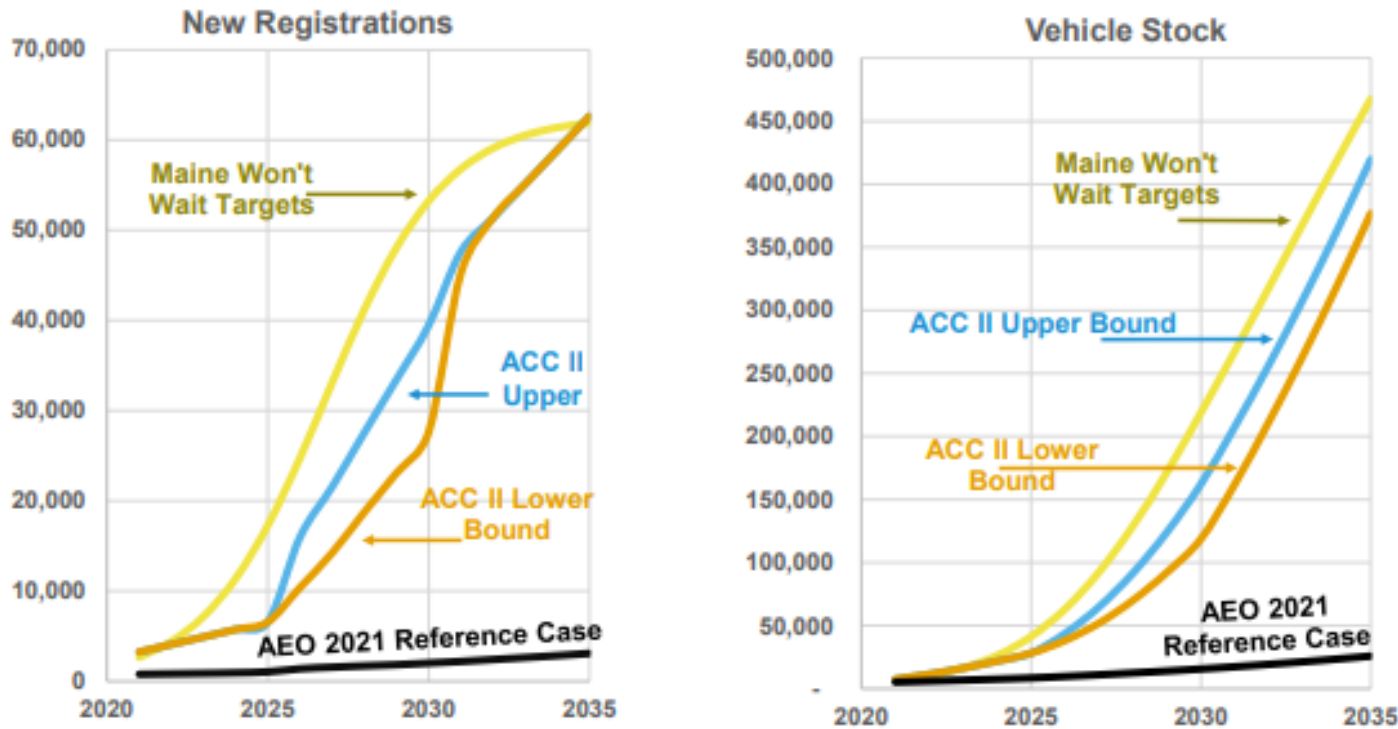
New registrations resulting from combined new and used vehicles sales.

Modeling shows new registrations need to be more than ACCII upper boundary line to meet MWW targets.

Clean Transportation Roadmap Modeling – Policy Levers

- Multi-Unit Dwelling (MUD) L2 Charger Incentive Program (CFI)

- Expanded Low-Income EV Incentive Program with L2 Charger

- Cash for Clunkers Program

- Medium- and Heavy-Duty EV Incentive

- Marketing and Awareness Campaign

- EV-Ready Building Codes

- Utility reform: demand charge relief, utility-side make-ready infrastructure, time of use (TOU) rates
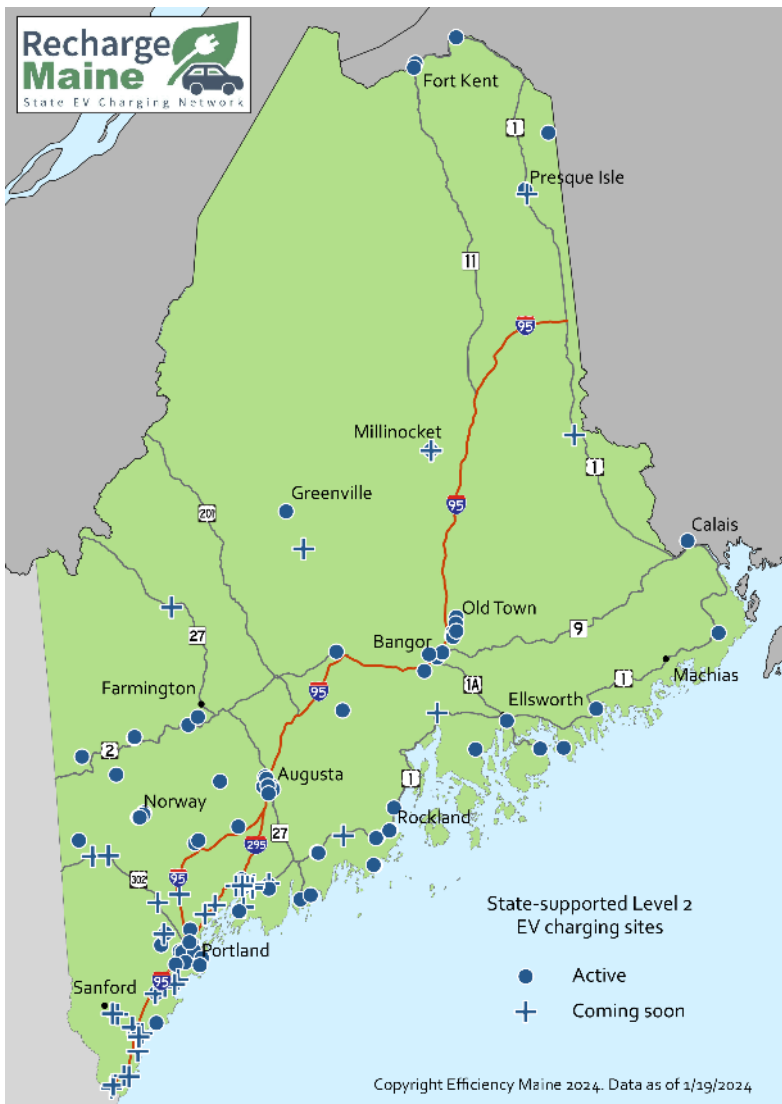
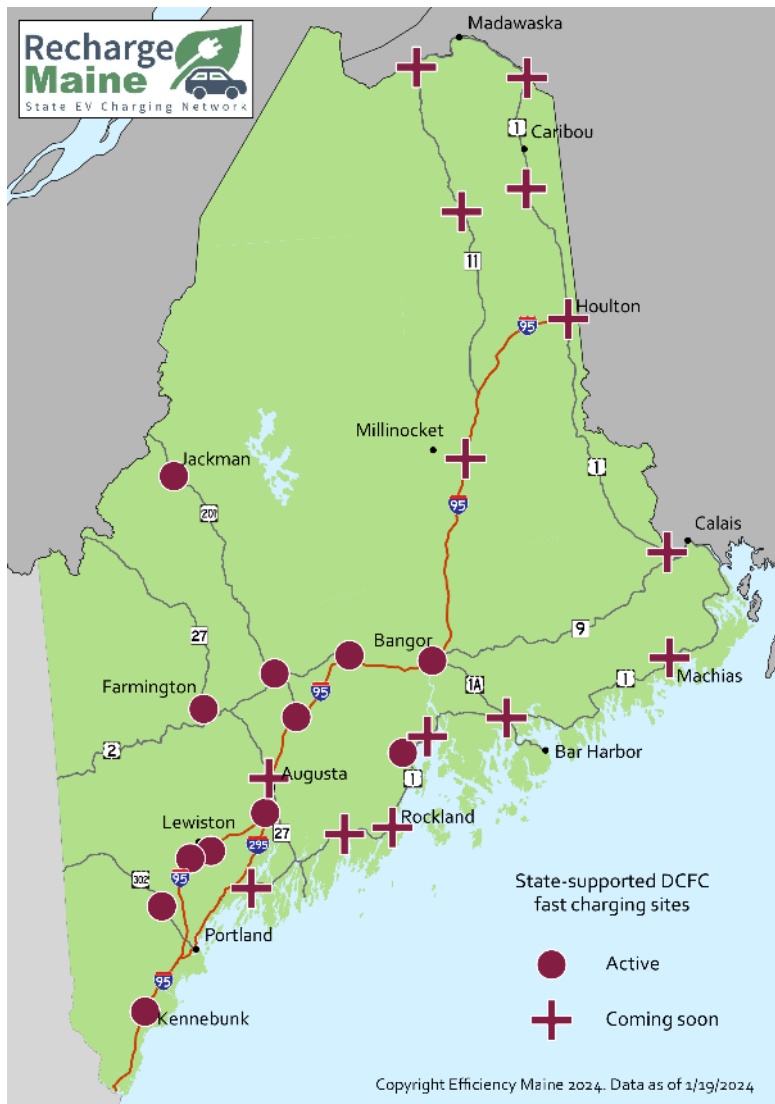# MWW Equity Subcommittee Recommendations for Transportation

- **Goal 1**: Increase EV ownership among low-to-moderate income households (LMI), renters, multifamily renters, and LMI in rural areas.

- **Goal 2**: Increase EV charging availability in LMI and renter households, rural areas, and multifamily residents

EV Charging Infrastructure - Progress

State-supported Level 2 EV charging sites
- Active
- Coming soon

Copyright Efficiency Maine 2024. Data as of 1/19/2024

State-supported DCFC fast charging sites
- Active
- Coming soon

Copyright Efficiency Maine 2024. Data as of 1/19/2024

2023 NEVI Plan

Funding Summary:

- $18M NEVI
- $15M CFI
- $8M MJRP

EV Charging Infrastructure – EV Charging Needs

EV charging needs data from Clean Transportation Roadmap

In 2021, "there [were] 417 publicly accessible Level 2 plugs and 131 publicly accessible DCFC plugs."

Table 2. Annual Investment Needed for Charging Infrastructure and Expanded LMI EV Rebate Program

(Values in bold are in millions $2021. Numbers in parentheses are new plugs or EVs rebated)[a,b]

|	2022	2023	2024	2025
Public L2 Charging [c]	$4.1M (200 plugs)	$4.9M (247 plugs)	$5.5M (291 plugs)	$6.0M (334 plugs)
Public DCFC Charging [c]	$7.7M (55 plugs)	$10.6M (77 plugs)	$14.4M (104 plugs)	$17.6M (132 plugs)
Residential L1 Charging [d]	$0.4M (1045 plugs)	$0.5M (1269 plugs)	$0.6M (1474 plugs)	$0.6M (1664 plugs)
Residential L2 Charging [d]	$1.8M (1568 plugs)	$2.2M (1903 plugs)	$2.6M (2212 plugs)	$2.9M (2495 plugs)
LMI New EV Rebate [e]	$6.4M (853 EVs)	$7.0M (1028 EVs)	$7.5M (1203 EVs)	$7.7M (1377 EVs)
LMI Used EV Rebate [e]	$4.6M (1139 EVs)	$6.0M (1655 EVs)	$7.7M (2320 EVs)	$8.8M (2996 EVs)
Total	$25.0M	$31.2M	$38.2M	$43.7M

EV Charging Infrastructure - L2 Progress

2024

- 70% of goal met
- 349 more plugs needed
- Does not include plugs that have been awarded by ReCharge Maine and are coming soon
- ARPA and CFI will provide $7M for an estimated 1350 plugs
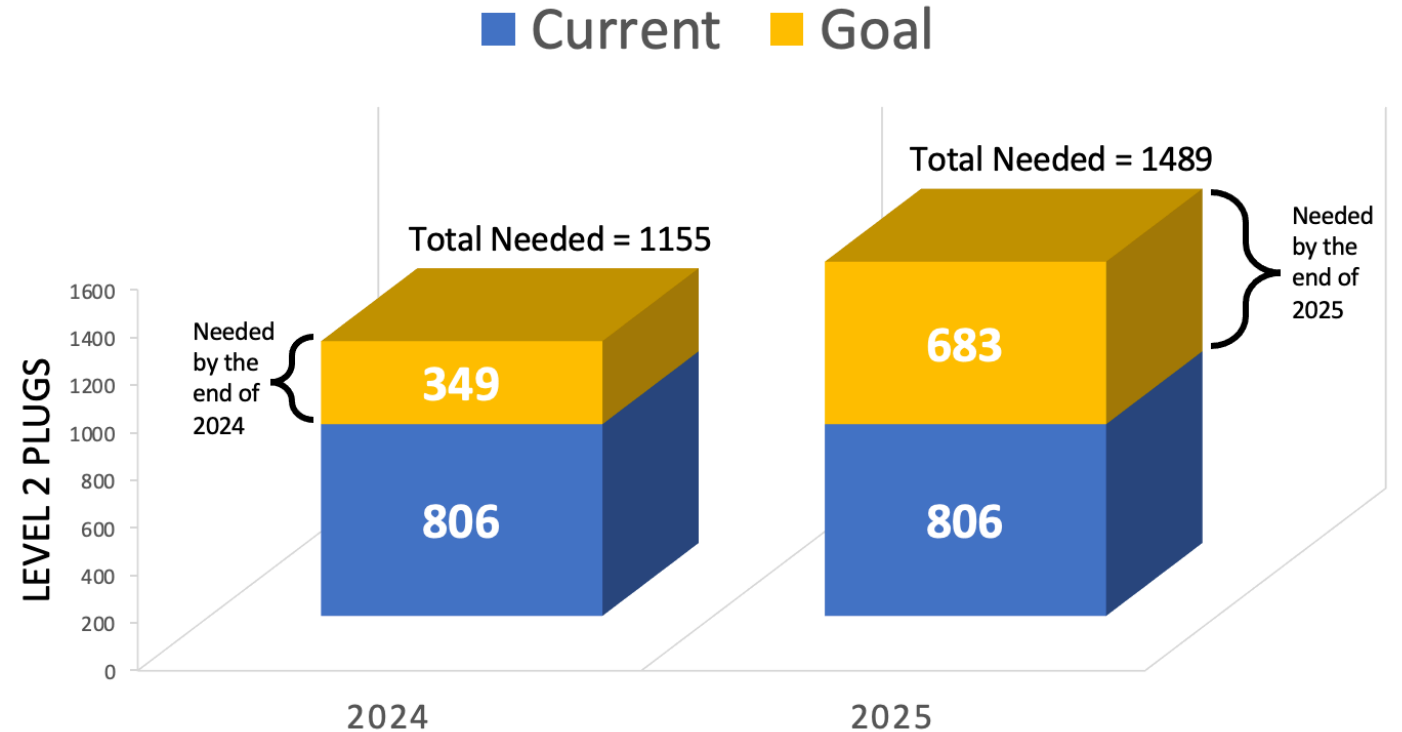
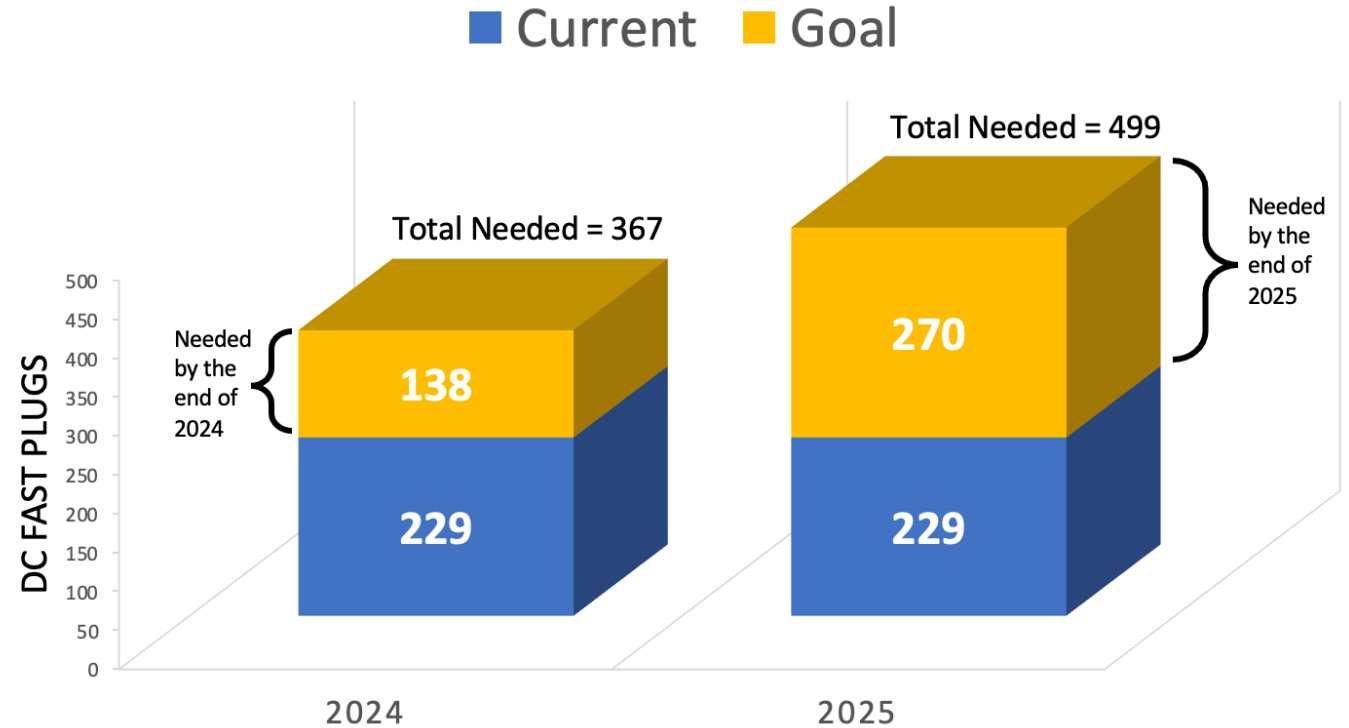Note: These calculations do not include proprietary Tesla stations.

EV Charging Infrastructure – DCFC Progress

2024

- 62% of goal met
- 138 more plugs needed
- Does not include plugs that have been awarded by ReCharge Maine and are coming soon
- ARPA, CFI, and NEVI will provide $34M in funding for more than 200 plugs

Note: These calculations do not include proprietary Tesla stations.

Electric Vehicles (EVs) - Progress

| Goal (Maine Won't Wait Targets)	Current Status Update (January 2024)
219,000 EVs on the road by 2030	13,364 (battery electric and plug-in)
28% new registrations are EVs by 2025	5%

2024

- Efficiency Maine is reviewing alternative rebate mechanisms for EVs; research will be shared in Triennial Report (late spring/early summer).
- Investigating funding sources to continue supporting EV rebate program.

What does Maine Won't Wait need to say about:

- Public education campaign
- Other tools and mechanisms to drive adoption
  - ❑ EV incentives – consider fleets and other funding tools
  - ❑ Adopting ACC2 or deficit without it
  - ❑ Expanding charging – focus on workplace, fleet, other gaps
  - ❑ Super-users
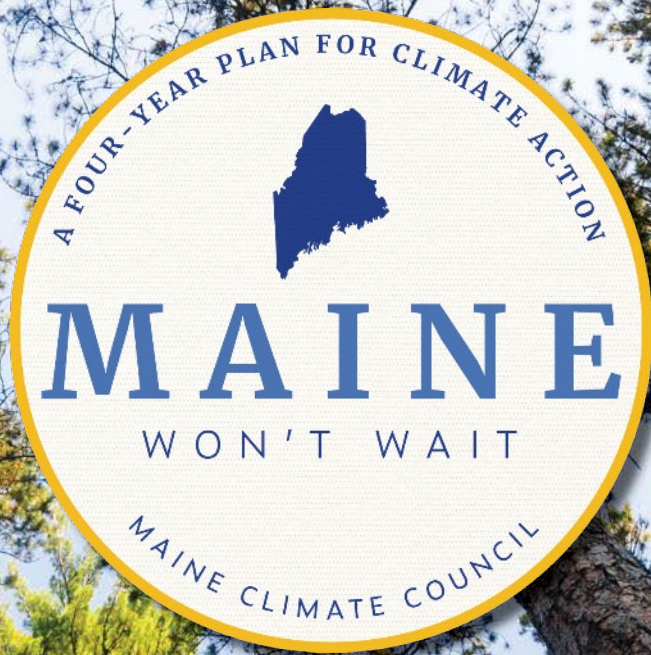 - ❑ Demand management

Next Steps and Adjournment
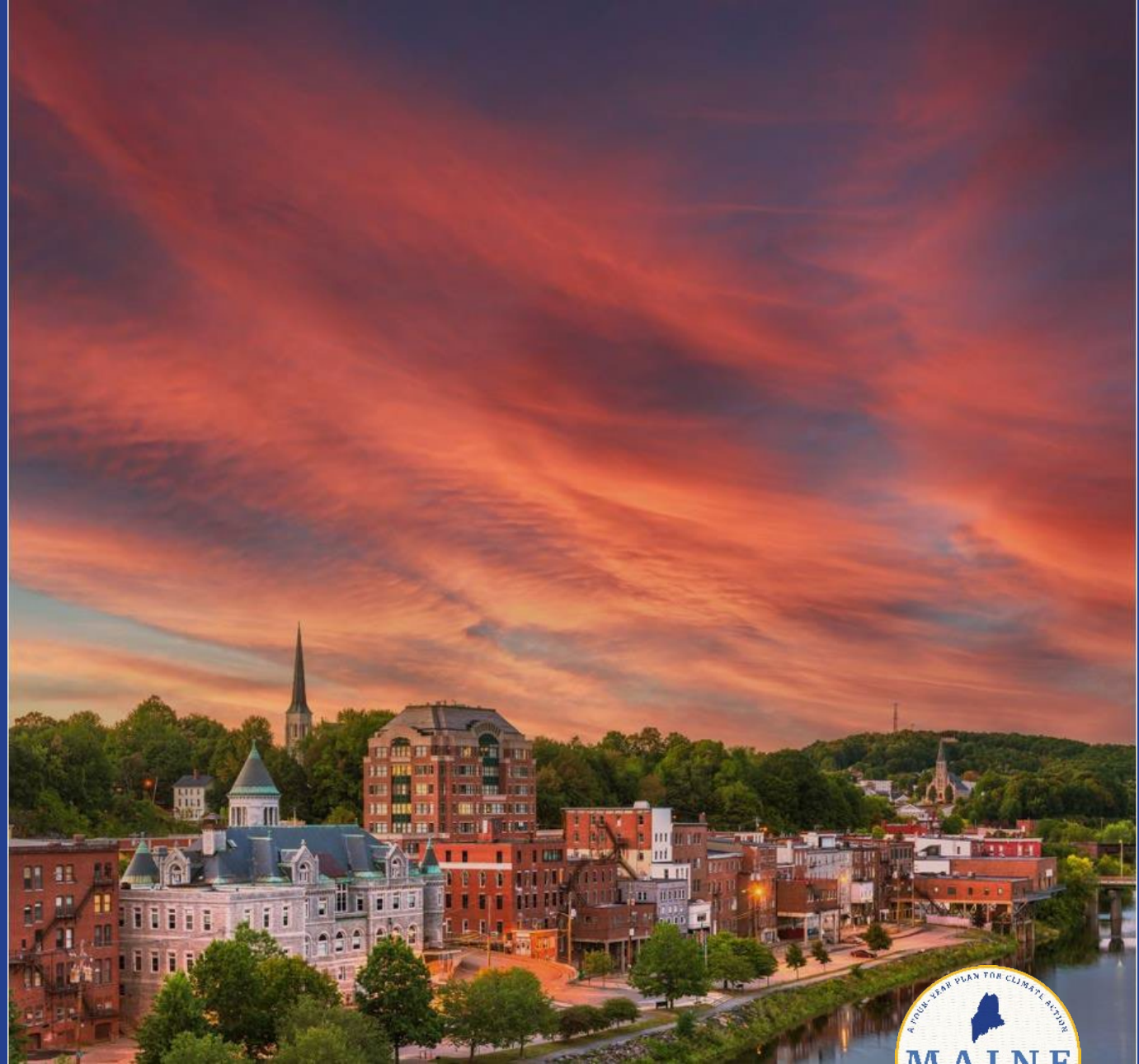
Transportation Working Group Meeting

Resources

- Maine Emissions Analysis (Nov 2020)
- Maine Won't Wait Report (Dec 2020)
- Clean Transportation Roadmap (Dec 2021)