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**Transportation and Land Use (TLU)  
Technical Work Group**

**Summary List of Pending Priority Policy Options for Analysis**

	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Level of Support
		2015	2025	Total 2009–2025			
TLU-1	Infrastructure for Plug-In Vehicles	<i>Not Yet Quantified</i>					Pending
TLU-2	Research and Development for Renewable Transportation Fuels	<i>Not Yet Quantified</i>					Pending
TLU-3	Smart Growth, Pedestrian and Bicycle	<i>Not Yet Quantified</i>					Pending
TLU-4 (new)	Procurement of Efficient Fleet Vehicles (Passenger and Freight)	<i>Not Yet Quantified</i>					Pending
TLU-5	Promote and Facilitate Freight Efficiency	<i>Not Yet Quantified</i>					Pending
TLU-6	Improve and Expand Transit Service and Infrastructure	<i>Not Yet Quantified</i>					Pending
TLU-7	School and University Transportation Bundle	<i>Not Yet Quantified</i>					Pending
TLU-8	Alternative Fuel Development and Expansion	<i>Not Yet Quantified</i>					Pending
TLU-9	Public Education	<i>Not Yet Quantified</i>					Pending
TLU-10 (new)	New Vehicle Standards: Tailpipe GHG and Fuel Economy	<i>Not Yet Quantified</i>					Pending

Note: The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

## TLU-1. Infrastructure for Plug-In Vehicles

### Policy Description

This policy focuses on developing infrastructure facilities for plug-in hybrids to recharge at rest areas and fueling stations on limited-access highways. These plug-in recharging facilities could provide consumers with more available locations for recharging and allow plug-in vehicles to extend their range to longer-distance trips.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### Key Uncertainties

TBD – [as needed and approved by the TWG]

**Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

**Feasibility Issues**

TBD – [as needed and approved by the TWG]

**Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

**Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

**Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-2. Research and Development for Renewable Transportation Fuels

### Policy Description

This policy would provide funding to assist in the development of low-carbon fuels that are not yet commercially viable, such as cellulosic ethanol, along with an accurate analysis and recommendations of which renewable fuels will be the best options for the state, region, or city.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### Key Uncertainties

TBD – [as needed and approved by the TWG]

**Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

**Feasibility Issues**

TBD – [as needed and approved by the TWG]

**Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

**Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

**Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

### TLU-3. Smart Growth, Pedestrian and Bicycle

#### Policy Description

This policy focuses on incentives and programs to encourage smart growth, including enhancing the pedestrian and bicycle infrastructure. Programs include:

- Modifying and funding reforms of state and local property tax, development fees, and zoning/building codes and policies to support GHG reductions and the implementation of state growth management plans.
- Developing economic incentives (e.g., tax-based) and liberalize zoning and permitting processes to encourage:
  - Investment in downtowns and central business districts.
  - Infill development of vacant or underutilized properties (e.g., surface parking lots) in urban areas already largely developed.
  - Dense mixed-use development of properties in proximity to transit stations or facilities.
- Funding, information dissemination, and technical assistance to facilitate the adoption of smart-growth planning processes, models, and tools by local and regional jurisdictions.
- Improving, constructing, and promoting sidewalks and bikeways to increase pedestrian and bicycle travel and reduce automobile use. This includes providing an incentive for adults to purchase, use, and commute by bicycle.

#### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

#### Implementation Mechanisms

TBD – [as approved by the TWG]

#### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

#### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### **Estimated GHG Reductions and Costs or Cost Savings**

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### **Key Uncertainties**

TBD – [as needed and approved by the TWG]

### **Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

### **Feasibility Issues**

TBD – [as needed and approved by the TWG]

### **Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

### **Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

### **Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-4. Procurement of Efficient Fleet Vehicles (Passenger and Freight)

### Policy Description

This policy focuses on state and local governments providing incentives for public and private vehicle fleets to include low-GHG vehicles. In addition state and local governments will provide incentives or discounts to heavy duty fleet operators for the purchase of more fuel-efficient heavy vehicles. It would also provide education and encouragement for “right-sizing” fleet vehicles—i.e., purchasing the most fuel-efficient vehicle for freight needs.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### Key Uncertainties

TBD – [as needed and approved by the TWG]

**Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

**Feasibility Issues**

TBD – [as needed and approved by the TWG]

**Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

**Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

**Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-5. Promote and Facilitate Freight Efficiency

### Policy Description

This policy focuses on promoting and facilitating freight efficiency through:

- Improvements in railroad infrastructure and rail yards;
- Increasing rail capacity may allow some freight to shift from trucks to rail;
- Providing economic assistance and regulatory streamlining for the improvement of intermodal rail yards and the relief of rail freight bottlenecks, and encouragement of short sea (coastal) shipping;
- Providing electrification at truck stops to reduce idling;
- Enforcing anti-idling ordinances and/or encouraging the use of alternatives to idling;
- Providing plug-in power at port sites to enable vessels to turn off engines and reduce idling.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### **Key Uncertainties**

TBD – [as needed and approved by the TWG]

### **Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

### **Feasibility Issues**

TBD – [as needed and approved by the TWG]

### **Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

### **Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

### **Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-6. Improve and Expand Transit Service and Infrastructure

### Policy Description

This policy focuses on increasing the use of public transit and reduce automobile travel by improving existing transit service and expanding public transit infrastructure. Service may be improved by expanding hours or coverage of bus service, and higher-frequency bus routes, including intercity bus service. Public transit infrastructure (e.g., rail lines, bus rapid-transit routes) will also be expanded.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### Key Uncertainties

TBD – [as needed and approved by the TWG]

**Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

**Feasibility Issues**

TBD – [as needed and approved by the TWG]

**Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

**Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

**Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-7. School and University Transportation Bundle

### Policy Description

This policy focuses on encouraging reduced transportation sector greenhouse gas emissions at schools, colleges, and universities by:

- Encouraging colleges and universities to restrict student driving on campus by limiting student parking.
- Encouraging secondary schools to restrict student driving on campus by limiting student parking.
- Encouraging all school age children to take the bus or rideshare.
- Implementing school instruction for grades 3 through 12 to educate students on transportation and climate change.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

**Key Uncertainties**

TBD – [as needed and approved by the TWG]

**Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

**Feasibility Issues**

TBD – [as needed and approved by the TWG]

**Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

**Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

**Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-8. Alternative Fuel Development and Expansion

### Policy Description

This policy focuses on encouraging alternative fuel development and expansion by:

- Adopting standards that require a certain amount or percentage of fuel sold within the state to be a renewable fuel.
- Facilitating the transition to renewable fuels by regulating quality standards for fuel blends.
- Promoting R&D related to biofuels production, such as the use of enzymes for breaking down cellulose to produce ethanol.
- Providing incentives to private providers of alternative-fuel infrastructure.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### **Key Uncertainties**

TBD – [as needed and approved by the TWG]

### **Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

### **Feasibility Issues**

TBD – [as needed and approved by the TWG]

### **Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

### **Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

### **Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-9. Public Education

### Policy Description

This policy focuses on implementing public education programs to better inform the public of the measures individuals can take to reduce their transportation-related GHG emissions. This will include:

- Consumer information indicating the comparative fuel efficiency information about different vehicles;
- Education and training regarding maintenance issues that affect pollution and vehicle operating costs (including tire inflation and engine lubricants);
- Energy-efficient driving habits (e.g., slower acceleration, shifting at lower revolutions per minute, and use of cruise control); and
- Encouraging the use of lower GHG modes of transportation.

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

**Key Uncertainties**

TBD – [as needed and approved by the TWG]

**Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

**Feasibility Issues**

TBD – [as needed and approved by the TWG]

**Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

**Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

**Barriers to Consensus**

TBD – [blank until final vote by the GCGW]

## TLU-10. New Vehicle Standards: Tailpipe GHG and Fuel Econom

### Policy Description

This policy will encourage new vehicle standards and greater vehicle fuel economy by:

- Supporting and lobbying for federal fuel economy standards and federal greenhouse gas (GHG) standards.
- Adopting programs to encourage purchase of lower-GHG vehicles (differential registration fees, feebates, and/or tax credits).

### Policy Design

TBD

**Goals:** TBD – [as approved by the TWG]

**Timing:** TBD – [as approved by the TWG]

**Parties Involved:** TBD – [as approved by the TWG]

**Other:** TBD – [as needed and approved by the TWG]

### Implementation Mechanisms

TBD – [as approved by the TWG]

### Related Policies/Programs in Place

TBD – [as needed and approved by the TWG]

### Type(s) of GHG Reductions

TBD – [as approved by the TWG]

### Estimated GHG Reductions and Costs or Cost Savings

TBD – [as approved by the TWG]

**Data Sources:** [TBD, as approved by the TWG]

**Quantification Methods:** [e.g., Full life cycle analysis with supply/demand equilibrium adjustments on TWG approval]

**Key Assumptions:** [TBD, as approved by the TWG]

### Key Uncertainties

TBD – [as needed and approved by the TWG]

### **Additional Benefits and Costs**

TBD – [as needed and approved by the TWG]

### **Feasibility Issues**

TBD – [as needed and approved by the TWG]

### **Status of Group Approval**

Pending – [until GCGW moves to final agreement at meeting #7 or #8]

### **Level of Group Support**

TBD – [blank until GCGW meeting #7 or #8]

### **Barriers to Consensus**

TBD – [blank until final vote by the GCGW]