MaineDOT

Report
Of the Maine Department of Transportation

To the Joint Standing Committees on Transportation and Natural Resources

On Section 2 of Resolve 2009, Chapter 42

"Resolve, Directing the Department of Transportation to Study Ways to Reduce Energy Use and Promote Efficiency along Major Transportation Corridors"

Maine Department of Transportation
16 State House Station
Augusta, ME 04333

January 30, 2010

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DEPARTMENT OF TRANSPORTATION
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AUGUSTA, MAINE
04333-0016

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Memorandum

To: Joint Standing Committee on Transportation and Joint Standing Committee on Natural Resources

From: Nina Fisher

Date: January 29, 2010

Re: Resolve, Directing the Department of Transportation to Study Ways to Reduce Energy Use and Promote Efficiency along Major Transportation Corridors

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The Maine Department of Transportation (MaineDOT) is pleased to present its report to the Joint Standing Committees on Transportation and Natural Resources pursuant to Resolve 2009, Chapter 42 entitled "Resolve, Directing the Department of Transportation to Study Ways to Reduce Energy Use and Promote Efficiency along Major Transportation Corridors." The purpose of this report is to provide a comprehensive overview and analysis, including recommendations, related to statewide policies and programs that address reduction of energy use on major transportation corridors.

MaineDOT worked with Task Force Stakeholders which included the Maine Municipal Association, the State Planning Office, the Department of Environmental Protection, Metropolitan Planning Organizations, Regional Planning Organizations, The Bicycle Coalition of Maine and many others.

The members of the Stakeholder Task Force hope that this report is helpful in your continued efforts to improve policies, programs and laws related to energy efficiency in Maine. Should you have any questions please contact Nina Fisher at (207) 624-3558 or nina.a.fisher@maine.gov.

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Intermodalism including passenger transportation, freight, aviation, and walking and bicycling access (cont.)

Executive Summary

Introduction

LD 846, 124th Maine State Legislature, Resolve, Directing the Department of Transportation (MaineDOT) to Study Ways to Reduce Energy Use and Promote Efficiency along Major Transportation Corridors, directed MaineDOT, in collaboration with stakeholders, to develop recommendations for laws, rules and policies in order to identify ways to reduce energy use and promote efficiency along major transportation corridors- primarily through the reduction of Vehicle Miles Traveled (VMT). The more VMT grows, the more energy is consumed. Overall, statewide VMT increased 54% from 1985 to 2008 with the fastest growth in southern and coastal counties.

An interdisciplinary MaineDOT team as well as the stakeholders listed in Appendix A chose to evaluate the following transportation laws, rules and policies:

Planning and Policy Development

- Sensible Transportation Policy Act
- Comprehensive Planning Requirements of State Law
- School Siting Policies
- Intermodal investments
- HUD/EPA/USDOT Livable Communities Initiative
- Freight
- Freight Rail
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State Level Plans and Initiatives

- Connecting Maine: Maine's Long Range Transportation Plan
- Corridors of Economic Significance for Transportation
- Pre-Emergency Energy Task Force
- Transit Oriented Development Tax Increment Financing (TIF) Law
- DECD Community Block Grants Community Development Block Grants (CDBG)
- Ongoing Transportation Management Initiatives for Reducing Energy Use
- Buying of Land or Development Rights to Preserve Mobility
- Overlay Zones for Transportation
- Transfer of Development/Trip Rights
- Urban Compact Areas
- Metropolitan Planning Organizations
- Transportation System Management Efficiency
- Traffic Movement Permit
- Access Management
- MaineDOT Shoulder Policy
- Draft Municipal/ Local Cost Sharing Policy/Sidewalk Policy
- MaineDOT Complete Streets Policy

The development of this report which evaluated existing and potential laws, rules, programs and policies, focused on a general overview of each related program, and included options for improvements. Because most of these options for improvement of existing programs included the need for additional funding which is not likely to be found, the Stakeholder Group decided to focus on a three primary recommendations that do not require additional funding or programs to implement.

All recommendations are products of group and Task Force collaborations and discussions versus MaineDOT policy initiatives.

Preliminary Findings

1. A number of the laws, rules or policies directly related to this resolve were found to be undergoing concurrent reviews through administrative or legislative directives. For instance, Urban Compact Designation Policy is undergoing a concurrent review via the "Highway Simplification" study created by the Legislature in early 2009 under LD 333 and enacted as PL 2009, Chapter 413. Therefore, some information and options summarized in this report may also have been included in other efforts related to reducing energy use.
2. A number of the laws, rules or policies outlined in this report have the potential to further reduce VMT and save energy, but are limited by available funding. Any consideration to expand a given program should be done with an understanding of the fiscal challenges facing Maine. Maine and the nation are being severely affected by an economic downturn resulting in a decline in revenues needed to operate programs or maintain the existing transportation system.
3. Measuring real or potential energy savings of a given transportation project is inherently complex. For instance, a project could increase VMT but significantly reduce Vehicle Hours Traveled (VHT) leading to a net energy savings.

Recommendations

1 The Legislature should consider adopting proposed amendments to the law and associated rules affecting Traffic Movement Permits. Proposed amendments would expand the application of this policy to incremental growth on highways and allow the development of Impact Fees to help guide growth and manage mobility. These proposed amendments would base the fee assessed on permit applicants in labor market areas for unacceptable reduction to the highway capacity, as opposed to only to those developers tripping the current threshold for requiring mitigation – leading to a more equitable cost sharing for development.

2. MaineDOT should hold a forum for the Transportation Committee, other interested Legislators, and this report's Task Force Stakeholders on MaineDOT's rules for access management to discuss the adequacy of existing laws and rules. The 119th Maine Legislature approved LD 2550 (Access Management) to ensure safety, manage highway capacity, conserve state highway investment, enhance economic productivity related to transportation, and conserve air, water, and land resources. Since their inception, the Access Management Rules have been continuously revised to accommodate individual permit applications without taking into account the original intent of the law.

3. The Legislature should direct MaineDOT to develop a pilot program designed to protect mobility along at least one Corridor of Economic Significance for Transportation (CREST). This pilot would evaluate options to buy parcels or easements to protect transportation mobility and reduce energy use on the State's highway system. It would also analyze corridor land use options and the potential for developing a Transfer of Trip Rights Program.

Outreach

Outreach efforts for this report included meetings on November 10 and December 8th with a core group of stakeholders proposed in the resolve. MaineDOT also requested information and comments from an expanded stakeholder group invited to submit written comments and/or attend a meeting held on January 5th, 2010. A list of both stakeholders groups is included in Appendix A of this report. Lastly, MaineDOT made the draft report available at www.MaineDOT.gov and sent notice of availability to additional transportation stakeholders. Comments were accepted until January 26th, 2010.

I. Planning and Policy Development

A. Sensible Transportation Policy Act (STPA)

Overview
The STPA encourages transportation decision-making with full consideration of the natural, social and cultural environment including energy consumption. It gives preference to options such as managing traffic and providing public transportation if feasible prior to adding new highways or widening existing highways. The STPA requires public and stakeholder input into transportation decision-making. It also includes provisions and incentives for land use planning at the municipal level that supports an efficient transportation system.

Strengths
The STPA includes energy conservation in its stated objectives. This includes the efficient use of all available and potential future modes of transportation, reduction of the state's reliance on foreign oil, promotion of the reliance on energy efficient forms of transportation, and promotion of investment incentives for communities that adopt and implement land use plans that minimize over-reliance on the state highway network.

Weaknesses
The STPA provides land use incentives only. It can still be offset by significant development that while adding to the local tax base, inhibits transportation efficiency and preservation of the transportation system. Furthermore, transportation priorities far outweigh available funding.

Options for Improvement
Increase funding incentive options or change jurisdiction for land use decisions on highways of regional and statewide significance.

B. Comprehensive Planning Requirements of State Law

Overview
The Growth Management Act, (Title 30-A, MRSA, Chapter 187) was adopted in 1988 and amended several times. The Growth Management Act and its implementing rule establishes statewide goals and guidelines for preparing municipal and multi-municipal comprehensive plans. These plans provide the legal basis for local zoning and other land use ordinances. The transportation element of the Comprehensive Plan can serve as a community's Transportation Plan.

Strengths
The Growth Management Act provides an incentive for municipal land use planning that complements an efficient transportation system. If a community develops an approved transportation plan, in response to the Sensible Transportation Policy Act (STPA) and also implements ordinances that support the plan, it will have a better chance of receiving state and federal funding assistance for transportation improvements, including sidewalks and bicycle and pedestrian facilities.

Weaknesses
Municipalities tend to focus planning and visioning within their boundaries without taking into account impacts beyond them. Therefore, It is very difficult to have any sort of consistent approach to protection of mobility corridors and subsequently reduce energy.

Options for Improvement
Consider ways to improve the requirements for enacting ordinances that preserve mobility on transportation corridors. Evaluate funding mechanisms to improve the incentives to help communities work towards quality compact community environments.

C. School Siting Policies

Overview
A school's location affects growth patterns of a community, economic development, land use, transportation, energy use and children's health. A school in a central part of a municipality and/or densely populated location will tend to compliment a lower VMT than a school on the edge of a municipality or in a sparsely populated area.

Strengths
Maine has made improvements to its school siting policies (policies only affect towns that receive Department of Education funding) to encourage more redevelopment of schools, as well as schools closer or within built up areas. This can help reduce pollution levels and energy use of transportation to schools.

Weaknesses
It is still very easy for a community to locate a school in a rural section of town or in the middle of abutting communities. School consolidation can also make it hard to keep schools in denser areas.

Options for improvement
Review school siting policies to incentivize or require school siting in compact areas of communities, even if another school district is sharing the site.

II. State Level Plans and Initiatives

A. Connecting Maine: Maine's Long Range Transportation Plan

Overview

Connecting Maine is the state's integrated, long-range, multimodal transportation plan. It establishes a framework of goals, objectives, and performance-based strategies for addressing anticipated challenges and future trends. It articulates a transportation vision and goals that define performance-based strategies for decision-making that will result in improvements that benefit not only Maine's transportation system, but also improve its quality of life and strengthen its economic competitiveness in the world.

Strengths

Connecting Maine was developed over multiple years and included comprehensive outreach to the public and stakeholders throughout Maine. It provides a detailed discussion regarding the condition and challenges facing Maine's multimodal transportation system. It includes the following goal and underlying objectives which coincide with this resolve:

- ↗ Develop and implement transportation programs that enhance quality of life
  - Encourage compact land use patterns to maximize transportation efficiency and improve neighborhood environments
  - Provide transportation and environmental/cultural stewardship
  - Provide equitable access and choice for all travelers, including Maine's aging population
  - Provide healthy transportation choices, such as bicycle and pedestrian facilities

Weaknesses

Connecting Maine neither carries legal authority nor guarantees funding to achieve its goals and objectives. Furthermore, its 20-year horizon could be conceptually difficult to apply to annual or biannual funding cycles for some parties.

Options for improvement

MaineDOT is required under federal and state law to update its long-range transportation plan every couple of years and would welcome comments or suggestions during any future update.

B. Corridors of Regional Economic Significance for Transportation (CRESTs)

Overview

CRESTS are major transportation corridors over a contiguous area that depict the general movement of people and goods from one region to another. MaineDOT's Regional Planning Councils and Economic Development Districts identified 38 CRESTS throughout Maine, in part to help MaineDOT prioritize investments. A general map of CRESTS can be found in Appendix E.

Strengths

CRESTS were developed over multiple years through a comprehensive public involvement process. Each CREST includes transportation, land use and economic objectives.

Weaknesses

Although the establishment of CRESTs locations included some degree of prioritization, MaineDOT will need to further prioritize given the current transportation funding outlook.

Options for Improvement

MaineDOT can further refine, prioritize and collect input on CRESTS statewide through the Regional Planning Organizations.

C. Pre-Emergency Energy Task Force Report

Overview

The Pre-Emergency Energy Task Force Report was developed in July 2008 in response to a November 2007 Executive Order to investigate the escalating heating oil, gasoline and diesel prices in Maine. Members of the Moving People subcommittee included State Legislators and a wide range of industry stakeholders from passenger and freight rail, bicycle, transit, commercial trucking, commuter programs and alternative fuel advocates.

Strengths

The Moving People Report offered near, medium and long term strategies to help relieve Maine citizens from the negative impacts of rising gasoline prices primarily through reducing workforce commuting via single occupancy vehicles.

Weaknesses

Options in the report required significant additional funding.

D. Transit Oriented Development Tax Increment Financing (TIF) Law

Overview

Title 30-A sections 5223, 5224 and 5225 allow for the development of a Transit Oriented Development TIF District. This statue enables municipalities to use TIF revenue for new or expanded transit functions, including operational costs.

Strengths
This law allows a municipality to generate revenue for transit facilities and operation of transit systems. Operating costs are often cost prohibitive to a municipal budget.

Weaknesses
The TIF applies to development within ¼ mile from a hub or 500 feet from a transit corridor. Revenue can only be used for transit and only in places where there is transit or new transit is proposed as part of the development.

Options for Improvement
The law is in place but has not been used as of publication of this report. Develop a pilot project to set a model that other communities can follow.

E. Department of Economic and Community Development (DECD) Community Development Block Grants

Overview
The Department of Economic and Community Development (DECD) offers grants to Maine communities to achieve community and economic development objectives. Communities often use this funding to improve the community environment - including sidewalks, streetscape improvements and trails. DECD also provides Community Planning Grants up to $10,000 (25% match required) for studies relating to community planning, downtown revitalization, trails, etc.

Strengths
This program funds improvements at the community level that improve the quality of the community environment through improvements to sidewalks, streetscapes, and downtown areas reducing energy.

Weaknesses
This program is very competitive and the needs far outweigh available resources.

Options for Improvement
Support increasing of funding for this program at the national and state levels, including downtown revitalization, sidewalk, and streetscape projects. Improve education to communities on the types of projects that are eligible and how to work towards community improvements.

III. Ongoing Transportation Management Initiatives

A. Urban Compact Areas

Overview
Maine has 43 "urban compact" areas in municipalities towns/cities. Each urban compact area has a population over 7,500 according to the last US Census and there is a designated compact urban line around them that separates the "built up" part of that town vs. the more rural part of that town. From a highway maintenance perspective, all eligible municipalities maintain all public roads within the urban compact area on a year round basis plus they have authority over highway opening permits and driveway entrances onto those roads.

Strengths
Highway maintenance is efficient as it is done by the same level of government.

Weaknesses
Urban Compact areas are based on decennial Census population of 7,500 and no other factors.

Options
These designations are undergoing a comprehensive evaluation as part of the Highway Simplification study created by the Legislature in early 2009 under LD 333 and enacted as PL 2009, Chapter 413.

B. Metropolitan Planning Organizations

Overview
A metropolitan planning organization (MPO) by federal law must be designated for each urban area with a population of 50,000 of more, as determined by the federal Census. (See 23 U.S.C., Ch. 1, §134.) Maine has four MPOs, covering the Bangor, Greater Portland, Lewiston-Auburn and Kittery areas. MPOs are governed by policy committees consisting of representatives from cities and towns, MaineDOT, regional planning agencies, and public transit providers. MPOs share responsibility with the MaineDOT and the Maine Turnpike Authority for making transportation investment decisions in Maine's most heavily populated regions.

Strengths
MPOs foster collaborative regional decision-making and planning.

Weaknesses
While MPOs generally strive for regional cooperation, capital investments can become a question of, "What can I get for my community?" Competing land-used policies and priorities among the MPO-member communities can also hinder regional cooperation.

Options for Improvement
MaineDOT and MPOs can continue collaborative conversations aimed at improving the planning process.

C. Transportation System Management Efficiency

Overview
MaineDOT has made a concerted effort over the past few years to investigate the operations of traffic signals statewide. Allowing vehicles to travel along a corridor without having to stop at every traffic signal reduces energy use and pollution levels. MaineDOT has funded five signal system projects over the past two biennial budgets and additional candidates await funding.

Strengths
Signal upgrades, interconnection and coordination provide an instantaneous energy reduction benefit and may be done year-round.

Weaknesses
Traffic signal systems are only as good as the maintenance that goes into them. A large majority of the signals in the state are maintained by municipalities. Municipal budget cuts could end up reducing efforts on signal efficiency.

Options for improvement
MaineDOT, municipalities, and MPO's should expand this program funding to ensure that all traffic signal areas are synchronized for maximum system efficiency.

D. Traffic Movement Permit

Overview
Traffic Movement Permits are required for developments that reach the thresholds described in Title 23 § 704 A. Any development that generates over 100 Passenger Car Equivalents (PCE) during the peak hour of operation needs to obtain a permit from MaineDOT. The purpose of the permit is to ensure that the development is not going to degrade the operations of the roadway network. If the development is found to potentially degrade the system, the MaineDOT can require the development to mitigate the problem. The mitigation can be in the form of the construction of turn lanes, extra through lanes, traffic signals, widened shoulders, sidewalks, bike lanes, construction of park and ride facilities, etc. All modal needs are identified and action taken on a case by case basis.

Strengths
The rules that govern the Traffic Movement Permit are extensive and impacts to the highway system are to a great extent mitigated through this process. Mitigation can be done through construction of mandated fixes, transportation demand management techniques or by paying an impact fee. The rules also have some exemptions for reuse of existing businesses and developments in the urban compacts, central business districts or designated growth zones. This process helps ensure that congestion does not increase as a result of major developments. Because this process helps keep traffic moving, it has the potential to help alleviate potential congestion and reduce energy use.

Weaknesses

There are no provisions in the Traffic Movement Permit Rules for incremental development, so a potential developer may trip the threshold and be required to help pay for a prior development's impact on the transportation system. Also, because of additional capacity through construction of improvements, the next development does not have to help pay for the capacity that it will be using. There is no equity for the developers. Also, while there are exemptions for smart development, often municipal requirements make reuse of or construction in those areas cost prohibitive. While Transportation Demand Management Techniques, such as including the use of carpools, vanpools, buses, bicycling, walking, compressed work hours, or working from home are options for mitigation, the statute limits the MaineDOT from requiring ongoing fees. This is an issue because operation is the biggest cost for any type of transit. Other issues result from constructing new lanes to deal with congestion, as the additional lane eats up developable land and further creates more of a barrier for pedestrian crossings. Another weakness in this process is that because a potential development may require mitigation in a compact area, and the area may not have the room for mitigation, it could lead to denial of a permit, making it more likely that the potential development moves out along the state highway system and away from the compact area.

Options for Improvement

There is currently a separate MaineDOT coordinated working group looking into changing the whole permit process based on an impact fee system within Labor Market Areas and lowering the threshold of the permit to capture the incremental development. Permits could potentially cost more in areas where development would affect mobility and lead to longer trips. This would promote the equity, but would come at a cost to those that pay nothing now.

> The Legislature should consider adopting proposed amendments to the law and associated rules affecting Traffic Movement Permits. Proposed amendments would expand the application of this policy to incremental growth on highways and allow the development of Impact Fees to help guide growth and manage mobility. These proposed amendments would base the fee assessed on permit applicants in labor market areas for unacceptable reduction to the highway capacity, as opposed to only to those developers tripping the current threshold for requiring mitigation – leading to a more equitable cost sharing for development.

E. Access Management

Overview

Title 23 704 authorizes the MaineDOT to issue permits for landowners to construct access points to state or state-aid highways outside the urban compact limits. The statute also authorizes MaineDOT to implement rules to administer the statute. Access Management can help reduce growth on Major Transportation Corridors.

Strengths

The rule's main strengths are the basic safety standards. This section of the rule requires MaineDOT staff to ensure, at a minimum, that any access point meets safety sight distance for the posted speed of the roadway, in other words provides basic protection for roadway travelers. The rule also provides some basic mobility protection for our roadways through

spacing standards, double frontage standards and mobility sight distance. It basically allows MaineDOT to locate the driveway in the most appropriate location on the property. The rule also allows the Department to affect land use on high speed arterial with the prohibition of public facilities on those roads, which will help maintain mobility on those roads.

Weaknesses

The rule as originally enacted was much stronger in helping to manage unregulated growth on many of the States Major Transportation Corridors. During the first three years of the rules existence, those rules were adjusted and many of the most important regulations were extracted. While the rule still has merit, it lost much of its land use management assistance, except for public facilities on high speed arterials.

Options for Improvement

The original changes in the law that were taken out required MaineDOT to deny access if the proposed development was on a mobility corridor and would require a traffic light on an area above 45 MPH. This helps focus development out of high speed areas, which has a benefit of reducing VMT. An option for improvement could be to reinstate the ability to deny access on Major Transportation Corridors if the proposed development would affect traffic mobility.

- MaineDOT should hold a forum for the Transportation Committee, other interested Legislators, and this report's Task Force Stakeholders on MaineDOT's rules for access management to discuss the adequacy of existing laws and rules. The 119th Maine Legislature approved LD 2550 (Access Management) to ensure safety, manage highway capacity, conserve state highway investment, enhance economic productivity related to transportation, and conserve air, water, and land resources. Since their inception, the Access Management Rules have been continuously revised to accommodate individual permit applications without taking into account the original intent of the law.

F. MaineDOT Shoulder Policy

Overview

MaineDOT's Shoulder Policy states that shoulders will be paved as part of new construction, highway capital improvement, or pavement preservation projects on the National Highway System (NHS) and where shoulders are warranted on all other state roads based on state highway standards.

Strengths

Paved shoulders provide vehicular safety and more of an avenue for bicycling and walking than unpaved shoulders. The majority of the NHS has paved shoulders.

Weaknesses

Lack of funding for road improvements limits the new number of paved shoulder miles. The current policy does not dictate a consistent shoulder width or a policy to ensure smooth transition between shoulder and lane during maintenance paving.

Options for improvement
Increase funding for road improvements. Strengthen process to ensure that policy is adhered to in all cases. Revise policy to improve specifications of paving shoulders.

G. Draft MaineDOT Municipal/ Local Cost Sharing Policy/ Sidewalk Policy

Overview
MaineDOT's draft sidewalk and match policy for "major highway treatments" outlines how local shares will be calculated for project components such as sidewalks, landscaping, aesthetic planning, extra parking etc. This policy helps ensure that a sidewalk will be included in all transportation projects where warranted and feasible as part of the road project. Cost sharing calculations are based primarily on density and features that generate an elevated concentration of pedestrian trips such as schools or village centers.

Strengths
This policy enables people the option of walking to a destination as opposed to driving. Since it correlates to density, it likely generates walking trips that would otherwise have utilized fossil fuels.

Weaknesses
Lack of funding for road reconstruction projects limits the effect of this incentive based policy on reducing energy consumption.

Options for Improvement
Finalize policy and increase funding.

IV. Intermodalism including passenger transportation, freight, aviation, and walking and bicycling access

A. Passenger Rail

Overview
In 2001, Maine saw the return of passenger rail service with the Amtrak Downeaster service linking Portland to Boston. Ridership has grown steadily since then, attracting even more riders through a reduction in travel time and the addition of a fifth round trip.

Strengths
The Downeaster has helped reduce VMT and overall energy use by reducing the number of motor vehicles traveling along the Interstate 95 Corridor between Boston and Portland.

Weaknesses
The time it takes to get to Boston is typically longer and more expensive than a bus or car trip, thereby limiting its effectiveness at reducing energy consumption. Also, the funding for startup and operations is challenging to acquire and maintain.

Options for Improvement
Extend the Downeaster service to Brunswick when feasible and warranted. Reduce travel time to make the service even more competitive.

B. Transit – Fixed Route, Commuter Service, Intercity, and Rural Transit

Overview
Maine has fixed route urban transit in the larger urban areas of the state. Rural Transit service operates throughout the state. These services help provide urgent transportation services for health care, shopping, and other needs. MaineDOT owns all the buses and vans and leases them for use by the transportation providers. Currently MaineDOT owns 381 vehicles with a replacement value of $42,000,000. Greyhound and Concord Trailways service inter city connections throughout the State. These bus systems help reduce VMT and can help reduce energy use on Major Transportation Corridors.

Strengths
Fixed Route Transit service can help reduce energy use within Urban areas and some limited major transportation corridors. A bus full of people uses much less energy than the same number of people in single or double occupancy vehicles. Intercity bus service can also reduce VMT.

Weaknesses
Funding for Transit Service, as with most programs outlined in this report, does not fulfill the identified needs to maintain and expand transit service. Transit operators are seeing rising ridership participation, while at the same time declining fleet conditions.

Options for Improvement
Expand transit service including frequency and new areas.

C. Transit Bonus Program

Overview
In 2002, the 120th Maine Legislature enacted L.D. 507, "An Act to Create the Transit Bonus Payment Program". Transit Bonus Program creates an incentive for municipalities to increase municipal operating support for their regularly scheduled transit while reducing the rising property tax burden. Municipalities that increase funding to fixed route transit receive additional funding from the Urban-Rural Initiative Program (URIP).

Strengths
This program has increased funding for transit enabling energy efficient travel options.

Weaknesses
Transit Bonus requests are three times greater than the available resources.

Options for improvement
Evaluate methods to increase funding for the program.

D. Go Maine Commuter Connections Ridesharing and VanPool Program

Overview
Go-Maine is the statewide commuter services program, jointly funded by the Maine Department of Transportation and The Maine Turnpike Authority designed to enable and encourage people to car pool, van pool, walk, bicycle or take transit to work and in general. The program is administered by the Greater Portland Council of Governments. Go Maine works with commuters, employers, business groups, planning agencies, transit operators, and other local and regional partners throughout the state to increase awareness of, and demand for, healthy, economical and eco friendly commuter transportation options. The program advances the goals of improved air quality, reduced traffic congestion, energy conservation and lower commuting costs. Go-Maine currently has a van pool fleet of 35 vans and thousands of registered car pools. This program also provides a bike rack program to encourage bicycle commuting.

Strengths
This program has helped raise awareness of the benefits to the environment, transportation, and personal finances of ridesharing, van pooling, transit, walking and bicycling. This program has reduced VMT through integrated van pools, car pools, and increased transit, bicycling and walking.

Weaknesses
Lack of funding to expand the program to meet existing and future demand.

Options for improvement
Increase funding for the Go-Maine Program.

E. Park & Ride Lot Program

Overview

The Park & Ride Lot Program is a statewide program that originated from a 1986 Transportation Needs Study to reduce congestion and air pollution, improve air quality, and reduce dependence on foreign oil. The lots were developed to provide the parking space necessary to support these programs and to encourage the general public to carpool whenever possible.

Strengths

A 2007 study concluded that 1,087 vehicles use the park & ride lots at least 250 days per year translating into a VMT reduction of approximately 15 million miles traveled on an annual basis.

Weaknesses

The two biggest challenges facing the Park & Ride Lot Program are use and capacity. In certain geographical areas of the state, lots are not used as frequently in comparison to some of the more southern lots that are either near or at capacity.

Options for improvement

Identify and fund potential new park & ride lots throughout the state. Educate the public about park n ride locations. Explore public/private partnerships opportunities to develop additional park and ride facilities.

F. Transit Oriented Development

Overview

Transit Orientated Development is a development pattern that promotes density of residential and business growth around transit stops. Transit stops can include passenger train stations, bus stops, etc. TOD often refers to residential and mixed use areas near transit to promote cluster development and use of transit as a mode of transportation. TOD has been linked to reduced VMT and economic revitalization of areas.

Strengths

TOD in some states has been successful and resulted in mode shifts and reduced VMT's. Encouraging good planning through TOD can help reduce VMT and help to preserve the existing road network and/or demonstrate the viability of cost-effective alternatives to expanding existing network components.

Weaknesses

For the most part, TOD has been shown to be successful in urban areas with mass transit systems. It is harder to quantify the benefits to reducing VMTs in less urban areas.

Options for Improvement

- Continue to work towards and incentivize Transit Orientated Development patterns in village and urban areas and along Major Transportation Corridors.
- Provide incentives for Towns to incorporate Transit Oriented Development into their future comprehensive plans and ordinances.

G. Freight Rail

Overview
Currently about 85% of Maine's freight travels in trucks along the highway system. Freight rail is an important alternative particularly for energy reduction. It has the potential to reduce energy consumption and the degradation of the highway system by carrying freight that currently moves by truck. There are four railroad companies in Maine that move more than 8 million tons of freight per year over 1,200 miles of active track.

Strengths
Freight Rail systems can carry significantly more tonnage with less energy consumption than trucks.

Weaknesses
Significant rail investments are necessary to modernize Maine's rail infrastructure.

Options for Improvement
Increase funding for improving freight transportation.

H. Industrial Rail Access Program (IRAP)

Overview
IRAP provides 50/50 matching funds to private businesses that are looking to upgrade sidings, switches and other rail infrastructure in order to move product via rail. It can help reduce energy use by helping businesses that want to move from truck to rail service.

Strengths
This program leverages non-public funding and facilities moving freight by rail versus truck.

Weaknesses
Available funding versus need.

Options for Improvement
Revise matching requirements or increase funding.

I. InterCoastal Shipping, 3 Port Strategy

Overview
Maine's Three-Port Strategy is a strategy to focus port efforts on the three major ports of Eastport, Portland, and Searsport. These ports have experienced average annual growth rates of 5.6% in dry cargo over the last 20 years. Shipping into ports can help reduce the number of trucks coming up the east coast.

Strengths
Maine's three ports are strategically located and have made considerable upgrades in recent years to serve Maine shippers.

Weaknesses
The Ports are limited in reducing energy consumption due to the nature of the Cargo. Much of the Cargo comes from oversees, which than needs to be transferred onto Trucks or Train for further distribution.

Options for improvement
Continue to invest in its ports as has been done over the last 30 years.

J. Aviation

Overview
The State of Maine has a statewide Aviation Program that assists airports and aviation. Maine has 6 Commercial airports that serve interstate travel throughout the World. There are a total of 174 airports, 68 public use and 106 private use airports in Maine.

Strengths
Commercial Service Airports are able to reduce an abundance of vehicle traffic by transporting large quantities of people in one vehicle to locations throughout the world.

Weaknesses
Small aircraft travel between destinations also can use a lot of energy.

Options for Improvement
Increasing air service with more flights to more destinations at Commercial Service Airports would further reduce energy use on our State's Major Transportation Corridors. Also, reducing fares of flights coming out of Maine could make Maine airports more competitive than other New England States, thereby increasing ridership.

K. Walking and Bicycling

Overview
A bicycle and pedestrian friendly environment is a place where people have the opportunity to walk and bicycle in a safe and inviting place reducing trips that use fossil fuels.

Strengths
Improving conditions for walking and bicycling can help reduce VMT and energy consumption, particularly in urban and village areas.

Options for Improvement
Increase funding, improve land use policies and incentives.

L. MaineDOT Quality Community Program

Overview

MaineDOT assists with funding bicycle and pedestrian, safety, environmental, historical, and other improvements in communities throughout the state through its Quality Community Program. The program uses a variety of funding sources to provide funding assistance to communities that improves the quality of the community environment.

Strengths

This program created 20 miles of sidewalks and 15 miles of bicycle and pedestrian off- road connections among neighborhoods, schools, village centers and municipalities in the last two years. It facilitates more walking and bicycling, which reduces VMT and overall energy consumption.

Weaknesses

This program has limited funding. It is highly competitive, with approximately three times as many requests for funding than as is available funds in any given work plan.

Options for Improvement

Increase funding levels. Work with communities on village planning efforts to help prioritize community needs as they relate to improving transportation safety, mobility, and reducing energy use.

M. MaineDOT Complete Streets Policy

Overview

Providing safe access for bicyclists and pedestrians in the transportation system and improving village environments are essential to the quality of place and safe and efficient transportation in Maine. MaineDOT policies and federal law help ensure that facilities for pedestrians, bicyclists, and transit are considered for incorporation into all transportation decisions on the state highways, bridges, and in village areas. This is what is nationally recognized as a Complete Streets Policy.

Strengths

Complete Streets helps create compact livable communities, and can help reduce sprawl on the arterials. This is achieved through improvements to the quality of the community environment, which can attract economic development to designated growth areas.

Weaknesses

Lack of funding for road improvements limits the positive affects of the policy and complementary planning at the municipal level.

Options for Improvement

Finalize and formalize draft policy. Work with communities to encourage ordinances, street design standards, and site design standards that all require bicycle, pedestrian, and transit. Incorporate Complete Streets policy into all training and design manuals.

V. Corridor Planning

A. Buying of Land or Development Rights to Preserve Mobility

Overview
The concept of acquiring Land or Development Rights along Major Transportation Corridors has the potential to help preserve mobility and reduce energy use on major transportation corridors. Development that is spread out on major transportation corridors leads to increased VMT for people to travel further to destinations.

Strengths
Preserving mobility through easements or acquisition has the potential to reduce energy by preserving the capacity of major transportation corridors. Conservation easements may be a cost effective way to preserve mobility without having to purchase the needed land.

Weaknesses
This concept needs further study to determine whether it can be effective and workable.

Options for Improvement
The Legislature should direct MaineDOT to develop a pilot program designed to protect access rights along at least one Corridor of Economic Significance for Transportation (CREST). This pilot would evaluate options to buy parcels or easements to protect transportation mobility and reduce energy use on the State's highway system.

B. Overlay Zones for Transportation

Overview
Overlay Zones for Transportation is a concept of zoning to protect mobility, improve safety, and reduce energy use on major transportation corridors. Similar to Maine's Mandatory Shoreland Zoning Law, highways are like rivers and are not constrained by municipal or other geopolitical boundaries. The goal of an Overlay Zoning Program would be to manage the system as a whole, as opposed to the process where there are different options for each small section of highway.

Strengths
A regulatory system to protect the arterial system is a cost effective way of protecting the resource. Preservation of the major transportation corridors for mobility would help reduce energy use by directing development to areas that the transportation system could handle efficiently.

Weaknesses
This concept is controversial to some groups. This concept needs further study to determine whether it can be effective and workable.

Options for Improvement

Legislature direct MaineDOT to develop a pilot program designed to protect access rights along at least one Corridor of Economic Significance for Transportation (CREST). It would analyze corridor land use options and the potential for developing a Transfer of Trip Rights Program.

C. Transfer of Development/Trip Rights

Overview

Transfer of Development Rights is a general concept under consideration that has the potential to assist in shifting development to protect mobility, improve safety, and reduce energy use on major transportation corridors. The concept is for boundaries to be established whereas one area would be a sending area, and other areas would be receiving areas. Property owners in the receiving areas would buy additional trip credits from a property in a sending area in order to develop. Receiving areas are allowed to develop more intensely, sending areas less intensely, with the less intense areas allowed to recoup potential costs by selling their trip rights.

Strengths

Transfer of Trip Development/Trip Rights encourages development towards areas where the municipality/County/Labor Market Area/State want development through operating or fee based incentives. This allows these entities to preserve rural or natural features in the area, as well as preserve mobility, increase safety, and reduce energy use along major transportation corridors. Property owners in the sending area still maintain their property rights, but at a much smaller intensity, while selling off additional capacity to the receiving areas.

Weaknesses

This process may be difficult to implement. Individual municipalities may have contrary ideas as to where proper growth should occur. More study is needed to evaluate the feasibility and manageability of this type of program.

Options for Improvement

The Legislature could direct MaineDOT to develop a pilot program designed to protect access rights along at least one Corridor of Economic Significance for Transportation (CREST). This pilot would evaluate options to transfer development rights.

APPENDIX A

Task Force and Stakeholder Group Representation

Special Thanks to the following people and organizations who helped in the development of this Report:

Task Force Core Stakeholder Group

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APPENDIX B

Funding Challenges

MaineDOT is losing ground in its mission to maintain and improve the transportation system vital to Maine's economy and quality of life. The majority of current transportation funding is directed towards keeping the current system maintained and safe. At projected funding levels, the transportation system is degrading and investments will be inadequate to avoid system deterioration. The system's degradation will add substantially to the cost of delivering goods and services, increasing the time spent in vehicles, and creating an unfavorable climate for economic activity, as well as negatively affecting the environment.

In order for the State of Maine to have an adequate statewide transportation system that meets current needs and anticipates future demands, multiple modes of transportation are needed. As depicted in Connecting Maine, MaineDOT's long-range plan, an additional $2.6 to $3.8 billion need has been projected in the next 10 years alone. The funding gap is even greater for the subsequent 10 years and is described in detail in Connecting Maine, MaineDOT's long-range multimodal transportation plan, available at www.mainedot.gov.

Appendix C

Related Laws, Rules, Policies, Plans or Programs

A. Livable Communities Initiative out of Washington, DC

Overview

Livable Communities acknowledge the impact that transportation has on quality of life, economic development, transportation efficiency and the environment. On December 1st, 2009, U.S. Transportation Secretary Ray LaHood announced the availability of $280 million for urban circulator projects such as streetcars, buses, and bus facilities to support communities, expand business opportunities and improve people's quality of life while also creating jobs. Priority for the first round of Livability Projects will be given to projects that connect destinations and foster the redevelopment of communities into walkable, mixed use, high-density environments.

A second pot of funding totaling $150 million in unallocated discretionary Bus and Bus Facility funds will be available for projects that will foster the preservation and enhancement of urban and rural communities by providing new mobility options which provide access to jobs, healthcare, and education, and/or contribute to the redevelopment of neighborhoods into pedestrian-friendly vibrant environments. The Federal Transit Administration (FTA) plans to announce grants early in 2010.

Strengths

The new focus on livability initiatives will help reduce pollution and energy use by reducing VMT's and changing some of the transit systems to more fuel efficient modes. It will also bring more resources and focus to creating walkable compact communities, which can help reduce energy use.

Weaknesses

This program is just getting started and it is unclear whether Maine will be successful at receiving funds in the early stages of this program.

B. Maine Climate Action Plan

Overview

In 2003 Maine law (PL 237) required the Maine Department of Environmental Protection (DEP) to develop and submit a Climate Action Plan (CAP or Plan) for Maine. The goals of the CAP are to reduce greenhouse gas (GHG) emissions to1990 levels by 2010, and 10% below those levels in 2020.

The DEP worked with approximately 100 stakeholders to develop the Plan. In addition to a core group of 30 stakeholders comprising the Stakeholder Advisory Group (SAG), four different Working Groups (Transportation and Land Use; Buildings, Facilities, and Manufacturing; Energy and Solid Waste; and Agriculture and Forestry segments), met to identify measures, develop baselines, analyze pros and cons, and draft recommendations to the SAG and DEP.

The Plan created a blueprint for the implementation of climate change initiatives and set realistic targets for GHG reduction. The recommendations in the report were based upon both the amount of CO2 reduced over the long-term and the cost effectiveness of each option.

C. Maine Air Toxics Initiative (MATI)

Overview

The Maine DEP began the Maine Air Toxics Initiative (MATI) in 2002 in response to the Environmental Protection Agency's National Air Toxics Assessment which indicated that Maine citizens faced an unacceptable risk from air toxics. MATI was a facilitated stakeholder process aimed at identifying: 1) air toxic pollutants that pose the greatest risk to the Maine public; 2) sources of air toxic pollutants; and 3) cost-effective solutions to reduce the risk of toxic air pollution.

The Mobile Sources Subcommittee explored cost-effective strategies for air toxic reductions from mobile sources in both the on-road and non-road sector. Also, the subcommittee considered the impacts from land use development on transportation and resultant air toxics emissions. The Subcommittee recommended several strategies to reduce vehicle miles traveled from light-duty-gas vehicles, increase vehicle occupancy and improve opportunities for walking, biking and using public transit by implementing, among other things, Transit Oriented Development, Expanding Public Transit, Telecommuting, and Increasing Carpool Lots.

On June 26, 2007, the ATAC reached agreement on recommended strategies to reduce air toxic emissions in Maine. The final report recommended several strategies to reduce emissions of air toxics reduction, including the following mobile source strategies:

- Statewide expansion of Cumberland County's On Board Diagnostics & Repair program (OBD)
- Five (5) programs to reduce Vehicle Miles Traveled (VMT) & increase vehicle occupancy
- An anti-idling program

D. Governor's Ocean Energy Task Force

Overview

Governor Baldacci established the Ocean Energy Task Force by Executive Order in November 2008 and charged it with recommending a strategy for moving forward as expeditiously as practicable with development of the vast renewable ocean energy resources of the Gulf of Maine, including offshore wind, tidal and wave energy. The Executive Order recognizes the enormous promise of our renewable ocean energy resources to address state and regional energy needs and reduce our dependence on fossil fuels. The Task Force has recommended that Maine set a goal to install 5 gigawatts of offshore wind energy generating capacity in Maine's coastal waters and adjoining federal waters by 2030, and is recommending actions that need to be taken to achieve this ambitious goal. In recognition of the fact that the vast majority of the fossil fuels consumed in Maine and the greenhouse gas emissions produced in Maine are a result of our heavy dependence on petroleum products for heat and transport, the Task Force is recommending that Maine move aggressively to convert Maine homes and businesses to more efficient electric air and

ground source heat pumps, and to convert Maine's vehicles to electric vehicles as those technologies become available.

Strengths

The December 2009 Ocean Energy Task Force Report recommends actions that should be taken, and measures that should be adopted, to move electrification of the heat and transport sectors forward. These recommendations include charging the Public Utilities Commission with designing a program to design a heat and transport electricity conversion program.

Weaknesses

The Task Force recommendations will be reviewed by the Governor and submitted to the Legislature this session. The Legislature must review and adopt these recommendations before action will be taken. Lack of additional resources within state agencies could delay progress on implementation of these recommendations.

Options for Improvement

Work with the MPUC and other state agencies to help design a program to convert Maine's motor vehicles to electricity when electric vehicle technologies are widely available and affordable, including planning for the infrastructure that will be needed to make this conversion. Design incentives to move electric vehicles into the market.

Appendix D

Resolve, Directing the Department of Transportation To Study Ways To Reduce Energy Use and Promote Efficiency along Major Transportation Corridors

Sec. 1. Develop recommendations on existing transportation laws, rules and policies. Resolved

That the Department of Transportation shall evaluate existing transportation laws, rules and policies, including, but not limited to, those that address transportation facility planning and design, traffic movement, driveways and entrances, urban compact designation and cost sharing and transit operations, identifying their strengths and weaknesses and how they might be changed to meet the objective of saving energy, measured principally by reduction in vehicle miles traveled, by maintaining arterial functions, improving system efficiency, reinforcing land use patterns that facilitate transit development and improving connections between land use and transportation decisions.

The evaluation must be conducted in collaboration with the Executive Department, State Planning Office and the Department of Environmental Protection and other state agencies that determine land use patterns along with the Maine Municipal Association, regional planning entities, metropolitan planning organizations, regional planning commissions and interest groups affected by those transportation laws, rules and policies.

Wherever it might be shown to advance this section, the evaluation must consider:

1. Overlay zoning districts for corridors of regional economic significance for transportation;
2. Costs and benefits of purchasing land or easements, including access easements, along such corridors;
3. Transfer of development or trip rights programs to level the playing field between high-growth and low-growth arterial areas;
4. Costs and benefits of urban compact designation;
5. Feasibility of developing so-called "complete streets"; and
6. Other land use and transportation strategies designed to reduce growth in vehicle miles traveled and greenhouse gas emissions, including transportation funding options; and be it further

Sec. 2. Report. Resolved

That the Department of Transportation shall submit a comprehensive written report concerning the evaluation under section 1 by January 31, 2010 including detailed recommendations for legislation. This report must be submitted to both the Joint Standing Committee on Transportation and the Joint Standing Committee on Natural Resources. Upon receipt and review of the report, the committees may submit legislation to the Second Regular Session of the 124th Legislature.

Summary

This resolve directs the Department of Transportation to study ways to reduce energy use and promote efficiency along major transportation corridors.

APPENDIX E

General Movement Patterns