

Chapter I

Summary of Findings

A. Need for Toll Modifications

The Thruway System is in its sixth decade of operation and the need for reconstruction and rehabilitation of its aging infrastructure and elements continues to require an increasing level of investment. At the same time, while traffic growth has been less than it has been historically, travelers on the roadway are experiencing more delays resulting from increasing traffic volumes. It is essential to provide customers with the mobility and service they require and expect to preserve the transportation artery that supports New York State's economy. In order to maintain the Thruway's aging infrastructure in a state of good repair and to provide needed operational and safety improvements, the Authority developed a comprehensive \$2.7 billion Capital Program for the period 2005 to 2011. Also included in the Capital Program are various projects along I-87, I-90, I-95, I-287, I-190 and the Canal System that are now part of the Thruway's mandated responsibility.

The Capital Program includes the reconstruction and/or rehabilitation of 520 miles of roadways, reconstruction, rehabilitation, or improvement of 196 bridges, operational and safety improvements, mobility improvements, congestion relief, update of various facilities and support systems, and replacement of aging equipment. An important element of the Authority's Capital Program is an improved Electronic Toll Collection (ETC) system that would provide higher-speed and highway speed E-ZPass at various locations to improve toll collection efficiency and reduce customer delays.

The current Authority toll structure cannot provide sufficient revenues to fund the Capital Program in accordance with the requirements of the Authority's Fiscal Management Guidelines and General Revenue Bond Resolution. Therefore, toll adjustments are necessary to complement other revenue and expense reduction efforts in order to maintain the Thruway in a state of good repair and to advance critical mobility, operational, and safety improvements.

B. Summary of Proposed Toll Modifications

The proposed toll modifications would be implemented in phases between July 2008 and January 2010 in order to minimize the impacts on Thruway customers.

The proposed toll adjustments are summarized below:

- July 2008 (Effective June 29, 2008): E-ZPass discounts, which are currently 10 percent discount off the 2005 cash rates for passenger cars and 5 percent discount off the 2005 cash rates for commercial vehicles, would be modified to be 5 percent for all vehicle classes. A 10 percent additional discount would continue to be offered to customers operating certain high fuel efficiency and low emission vehicles meeting the eligibility requirements for the “Green Pass” Discount Program. In addition, the “Green Pass” Discount Program would be expanded so that it would be available to other customers of the New York Customer Service Center (NYCSC) Authorities.
- January 2009: A general 5 percent increase to all rates would be implemented on the controlled system, with comparable increases at the barriers of either \$0.25 or \$0.50 (except at the Grand Island Bridges). This 5 percent increase would also apply to most commuter rates as well to monthly minimums.
- July 2009: Modification of the eligibility requirements of the special additional Temporary “S” Discount afforded to some commercial vehicle customers would require these customers to have an E-ZPass account with one of the Authorities served by the New York Customer Service Center (NYCSC) (Thruway Authority, Port Authority of NY and NJ or MTA Bridges and Tunnels) in order to continue to get the additional discount.
- January 2010: A general 5 percent increase is proposed to all rates on the controlled system. There would be no changes to cash or E-ZPass rates at the Harriman, Yonkers, New Rochelle barriers and Grand Island Bridges. Tolls for passenger vehicles with a trailer and commercial vehicles at the Tappan Zee Bridge and Spring Valley Barrier are also proposed to increase by 5 percent. The monthly minimums for commuter and the annual permits plan would increase 5 percent, except at the Tappan Zee Bridge where the monthly minimums would remain \$60.

C. Diversion of Traffic from the Thruway Following the Proposed Toll Modifications

Potential Impacts

Implementation of the proposed toll modifications is expected to cause some diversion of traffic to other roadways parallel to the Thruway. If the diverted volumes are significant, there may be impacts to traffic, air quality, noise, local land use, and community character. However, as shown in this report, diverted traffic volumes and environmental impacts are not expected to be significant or sustained.

Methodology and Assumptions

In order to determine the effects of diverted Thruway traffic on the generally parallel diversion routes, the traffic characteristics of reasonable diversion routes were evaluated for both the No Action (no toll increase) and Action (with toll increase) conditions in 2010 when the last phase of the proposed toll modifications would be implemented. Approximately 1,700 route miles along the potential diversion routes were examined to determine the 2010 No Action and Action peak hour volumes, the volume to capacity ratios, and the percent of each roadway segment, corresponding to each Thruway segment, that are projected to be congested in 2010 before and after the effects of diverted traffic.

Along the barrier system, the effects of diverted traffic on alternate routes were evaluated qualitatively since peak hour diversion rates would be generally lower than along the controlled system and there are few attractive diversion routes.

Diverted Volumes

Based on elasticities derived from the effects of previous toll increases, it is estimated that only about two percent of cars and trucks would divert from the controlled portion of the Thruway to alternate routes on a daily basis. The estimated daily diversion rate at the barrier locations varies, depending on location, from about only 0.6 to 3.7 percent for cars and only 1.7 to 2.2 percent for commercial vehicles. The diversionary effects of the proposed toll increase are expected to be temporary as inflation would reduce the value of the proposed toll increase measured in constant dollars.

The peak hour diversion rate would be expected to be lower while the off-peak diversion rate would be expected to be higher than the daily average because the alternate routes have more reserve capacity during the off-peak hours.

Peak hour diverted volumes along the controlled portion of the Thruway are estimated to be relatively small, ranging from 15 to 78 vehicles southbound and 13 to 75 vehicles northbound. In many cases, there are multiple parallel diversion routes and diverted traffic from the Thruway was allocated among them on the basis of traffic volumes and congestion levels. The increase in peak hour traffic volumes along the various diversion routes would be small, varying from about 0.5 to 6 percent.

Peak hour diverted volumes at the Barrier System would be small, ranging from 7 vehicles at the South Grand Island Bridge to 56 vehicles at Harriman and New Rochelle. In some cases, as noted above, there are multiple diversion routes and the diverted traffic would be distributed on the basis of existing traffic volumes and congestion levels.

Locations Impacted

A screening process was used to identify roadway segments that would be potentially impacted by traffic diverted from the Thruway based on the following criteria:

1. A two percent or more increase in peak hour traffic volumes along the diversion route at the critical location where the volume/capacity is at a maximum; and
2. A volume/capacity greater than 0.95 at the location(s) where the v/c ratio is at a maximum.

The screening process described above represents the threshold at which traffic impacts may occur when additional traffic is added to roadways that are already congested or would become congested in 2010.

The screening process produced only six locations where the traffic volumes along the diversion route increased by 2 percent or more at the critical locations and where the maximum volume/capacity ratio was greater than 0.95. The screened locations would represent worst case conditions along the diversion routes. These locations are listed in Table I-1.

The screened roadway segments listed in Table I-1 were further analyzed to determine if there would be a traffic impact by means of field observations, traffic counts, and capacity analyses. All screened locations were observed to operate without any major delays during the peak hours. Several locations were modeled using the Highway Capacity Manual Software developed by the Transportation Research Board and approved for use by NYSDOT. The traffic modeling confirmed that the locations had sufficient reserve capacities to handle the small volume of traffic that would divert from the Thruway. The locations were re-analyzed by adding 20 percent to the existing volumes to account for higher seasonal traffic based on traffic counts. The results indicated that even with the added seasonal traffic, there would be sufficient reserve capacity to handle the small volume of diverted traffic and there would be no significant adverse traffic impact.

**Table I-1
Roadway Segments Exceeding the Screening Criteria
During the Peak Hour – Year 2010**

	Thruway Segment	Route	Location	NB /SB	Diverted Traffic	Percent Increase	No Action Max v/c	Action Max v/c
1	26-27	5	Town of Amsterdam	EB WB	20 21	3.09% 2.94%	0.932 0.932	0.959 0.960
2	39-40	20	Town of Auburn Route 38A Jct. East Genesee St	EB WB	26 27	2.32% 2.40%	1.518 1.518	1.553 1.554
3	40-41	5/20	Town of Seneca Falls, Village of Seneca Falls At Rumsey Street	EB WB	30 30	3.13% 3.13%	1.076 1.076	1.110 1.110
4	43-44	31	Macedon Routes 350, 31F	EB WB	21 22	2.46% 2.57%	1.239 1.239	1.270 1.271
5	43-44	5/20	Town of Canandaigua Smith Street (West of Route 247)	EB WB	20 20	2.34% 2.34%	1.030 1.030	1.054 1.054
6	45-46	5/20	Lima Route 15A	EB WB	18 18	3.17% 3.17%	0.945 0.945	0.975 0.975

Note: No Action peak hour traffic volumes, capacities, and v/c ratios were obtained from the NYSDOT 2006 Highway Sufficiency File. Traffic volumes were adjusted to 2010 by applying a 3 percent background growth factor.

Based upon field observations, traffic counts, and traffic analysis at the screened locations, the proposed toll increase would not result in a significant adverse impact due to diverted traffic from the Thruway.

Diversion of Commercial Vehicles Due to Modification of Eligibility for the Temporary Special Additional “S” Discounts

At present, qualified commercial vehicles receive a special discount over the regular Class H vehicles with a comparable number of axles. The proposed toll modifications would modify the eligibility requirements of the special discount effective July 2009 restricting eligibility to only E-ZPass customers of NYCSA Authorities. As a result, the effective toll increase for patrons currently receiving the special discount, but who would no longer be eligible, would be higher than the increases proposed for other commercial

vehicles. Those who continue to meet the eligibility requirements would continue to receive the temporary "S" Discount.

About 27 percent of all trucks on the controlled system and 22 to 26 percent on the barrier system are currently getting the special additional discount. The percentage of trucks that would continue to get the additional discount would be reduced as a result of the proposed modification of eligibility. It is estimated that about two-thirds of trucks currently receiving a special additional discount would continue to be eligible. The diversion rate for trucks that would continue to get the additional discount would be expected to be the same as other commercial vehicles, but the diversion rate for trucks that would no longer be eligible for the additional discount would be higher.

The special discount varies according to the number of axles with 5 axle trucks receiving a lower discount compared to 6 and 7 axle vehicles. The vast majority of commercial vehicles receiving a special discount are 5 axle trucks. Only about 1 to 3 percent of trucks have 6 or 7 axles that receive the higher discount. It would be expected that the diversion rate for the small number of 6 and 7 axle vehicles that would no longer get a discount would be higher than for 5 axle vehicles.

The diversion rate for 5 axle commercial vehicle customers currently receiving a special discount, but who would no longer be eligible, is expected to range from about 1.0 to 5.3 percent, depending on location. The diversion rate for 6 and 7 axle commercial vehicle customers who would not qualify for the special discount is estimated at 3.3 to 8.8 percent. The overall average diversion rate for commercial vehicles that currently receive a special discount, but would no longer be eligible, is estimated at about 3.5 percent compared to about 1 percent for other commercial vehicles on the controlled system and 0.5 percent at the bridges/barrier locations.

The diversion analyses uses a weighted average of the diversion rates for all commercial vehicle classes taking into account the higher diversion rates for commercial vehicles that would no longer get a special discount. In order to be conservative, the diversion rate is based on a 100 percent reduction in the number of trucks receiving the special discount. The weighted average diversion rate along the controlled system of the Thruway is estimated at 2 percent for all commercial vehicle classes. At bridges and barrier locations, the weighted average commercial vehicle diversion rate varies from 1.3 percent at the Tappan Zee Bridge to 2.1 percent at the Yonkers toll barrier.

In conclusion, while the diversion rates for commercial vehicles currently receiving a special discount, but no longer eligible, would be higher than for other commercial vehicles, its effects would be modest because of the large percentage of commercial vehicles that would not be affected by the proposed modification of eligibility requirements. Frequent Thruway users currently getting the temporary special discount and having a Thruway commercial vehicle account may continue to qualify for the temporary special discount.

Route 20 Corridor – Exit 39 and 42

The section of Route 20 between Thruway Exit 42 and I-81 is strategically located and is a desirable connector between the Thruway and traffic to and from points south. It is an advantageous route in terms of travel time and toll-cost perspectives for both autos and trucks originating along the Thruway at points west of Exit 42 and destined to the southern leg of I-81 towards Binghamton. Travel times along both routes are approximately 50 minutes and the mileage along Routes 20 and 318 (which are toll free) is about 12 miles shorter than that of the Thruway and I-690/I-81.

Traffic counts were taken at the intersection of Route 318 and 414 where most exiting Thruway traffic from Exit 41 and 42 converge and at Route 20 at the junction with I-81.

At the junction of Route 414 and Route 318, there were 225 vehicles (25 trucks) observed approaching this intersection and accessing Route 20 via Route 318 during a weekday AM peak hour; 180 vehicles (25 trucks) during the midday peak hour; and 287 vehicles (14 trucks) during the PM peak hour. Most of these vehicles appear to originate from the Thruway.

At the junction of Route 20 and I-81, 43 vehicles (3 trucks) were observed entering the southbound I-81 ramp (from eastbound Route 20) during the AM peak hour; 39 vehicles (2 trucks) during the midday peak hour; and 32 vehicles (2 trucks) during the PM peak hour. Some of the traffic entering the ramp originates from the Thruway, but not all. Therefore, the volume of traffic entering southbound I-81 ramp would represent the upper limit of the number of Thruway vehicles currently using Route 20 as a shortcut to Route I-81.

Based on the traffic counts, traffic exiting the Thruway at Exit 41 and 42 generally has a destination within the Route 20 corridor and only about 8 to 12 percent of trucks, at most, are using Route 20 as a shortcut to I-81. The potential for additional diversions using Route 20 as a short-cut is limited because longer distance trips originating from the Buffalo and Rochester areas would more likely use I-390 to I-86 as the preferred alternate route to Binghamton, New York City, and New Jersey. This route is shorter than via the Thruway/Route 20 and the travel time is competitive. The potential for diversion of through traffic along Route 20 to points east of Syracuse was also explored and included in the diversion analyses. Due to the relatively high cost of fuel and increased travel times, there does not appear to be a significant advantage for traffic that may divert from Thruway Exit 41 and 42 via Route 20 to points east beyond I-81 as a result of the proposed toll modifications.

D. Operational Impacts at Toll Plazas and Barriers

The proposed toll increase may affect cash transaction times due to the potential for increased change-making at a few locations where tolls change from an even amount (\$1 bill) to an odd amount (\$1 bill plus a quarter). E-ZPass transaction times would not

be affected. The impact of the proposed toll increase upon plaza/toll barrier operations would vary somewhat for each location depending on a number of factors, including toll plaza capacity, toll plaza traffic, E-ZPass usage and the change in tolls for cash-paying customers. However, as noted in this report, the proposed toll adjustments will have little effect on overall transaction times and toll plaza operations at most locations.

Toll Plaza Operations along the Controlled System

The controlled portion of the Thruway system has 53 toll plazas accounting for about 54 percent of the total annual transactions. The Albany Toll Plaza was surveyed and analyzed because it has the greatest traffic volumes and queues representing a worst case scenario along the controlled system. Tolls vary in accordance with the trip length and the cash tolls are rounded to the nearest nickel. The majority of transactions during the peak hour, over 70 percent, are made using E-ZPass and the processing rates for these customers should not be affected. Processing times for cash customers would be expected to change only slightly since most customers would continue to pay a non-exact toll. A small shift from cash to E-ZPass payment would have a small positive effect on plaza operations and queuing. A small number of customers would divert to other routes in order to avoid paying a toll and, therefore, plaza traffic volumes would be slightly lower following the proposed toll increase. This would further improve plaza operations slightly. Historically, the small reduction in plaza traffic volumes following a toll increase has been found to be temporary as inflation tends to reduce the financial as well as the diversionary effects of the toll increase over time.

In conclusion, there would be no significant adverse effect on toll plaza operations, queuing, and delays on the controlled system resulting from the proposed toll increase.

Toll Barrier Operations

The Thruway system has seven toll barriers, including the three bridges, accounting for about 46 percent of the total annual transactions. Tolls at the barrier locations are based primarily on the vehicle class except at two locations where time of day congestion pricing is in effect. Cash tolls are rounded to the nearest quarter to facilitate toll collection and minimize transaction times.

Four toll barrier locations were identified that could potentially be affected by the proposed toll modifications: South Grand Island Bridge (Tonawanda), Harriman, New Rochelle, and Yonkers. Cash transaction times are expected to increase slightly because fewer cash customers would have exact change when the toll increases from an 'even' toll (i.e. \$1.00) to a non-even toll (i.e. \$1.25). At New Rochelle, the cash toll would remain a non-even toll, increasing from \$1.50 to \$1.75, but the additional coin is expected to result in a small reduction of exact change customers. Cash tolls at the Tappan Zee Bridge would become an even \$5.00 and, therefore, cash transaction times should improve at this location. A small shift to E-ZPass payment and diversion of a small number of vehicles to alternate routes would tend to offset some or all of the effects of the slight increase in processing time for cash customers. Historically, the

small reduction in barrier traffic volumes following a toll increase has been found to be temporary as inflation tends to reduce the financial as well as the diversionary effects of the toll increase over time.

The effects of the proposed toll modifications on transaction times and traffic operations at the four toll barrier locations surveyed are summarized below:

South Grand Island Bridge:

There would be no change in the even \$1.00 cash toll and, therefore, the transaction times for passenger cars, accounting for about 90 percent of the peak hour transactions, would remain the same. Commercial vehicle cash tolls would change from an even to an odd toll for about 67 percent of commercial vehicle cash transactions. This would be partially offset by a change from an odd to an even toll for about 27 percent of commercial vehicle cash transactions. The net effect would be a change for 40 percent of cash paying commercial vehicle customers from an even to an odd toll. However, since approximately 75 percent of commercial vehicles use E-ZPass during the peak hour, the overall effect on processing times would be very small. A small shift to E-ZPass payment and a small reduction of traffic due to the toll increase would offset the increase in transaction time. Therefore, there would be no significant adverse impact to traffic operations, queuing, and idling times at this location.

Harriman Barrier:

Cash passenger car tolls would change from an even \$1.00 to \$1.25 and would result in a reduction in the percentage of cash customers that would pay an exact toll from 94 percent to about 75 percent. The additional change making would translate to higher average transaction times for cash customers.

E-ZPass usage during the peak hour is approximately 76 percent of all users, and the overall effect on average processing times would be relatively small. It is estimated that there would be an increase of about 7 percent in average transaction times¹, queuing, and idling time resulting from the proposed toll increase. There is sufficient reserve capacity to handle the additional processing time to maintain plaza operations at a reasonable level.

During the summer months, E-ZPass usage is typically lower during weekends and, therefore, there could be an impact on barrier operations during some hours particularly during Sunday afternoon and evening periods. An additional staffed lane could be provided to handle the additional cash processing times. This would eliminate the small adverse impacts the proposed toll adjustment would have on traffic operations, queuing and idling times and also significantly improve overall operations over the No Action conditions.

¹ Average transaction times are based on the total processing times for all customers: cash/exact change, cash/non-exact change, and E-ZPass divided by the total number of transactions during the peak hour.

Yonkers Barrier:

Cash passenger car tolls would change from an even \$1.00 to \$1.25 and would result in a reduction in the percentage of cash customers that would pay an exact toll from 85 percent to about 67 percent. The additional change making would translate to higher average transaction times for cash customers.

However, E-ZPass usage during the peak hour is approximately 83 percent and, therefore, the overall effect on average processing times would be relatively small. It is estimated that there would be an increase of about 4 percent in average transaction times, queuing, and idling time resulting from the proposed toll increase. However, there is sufficient reserve capacity to handle the additional processing time to maintain plaza operations at a reasonable level.

New Rochelle Barrier:

Cash passenger car tolls would change from \$1.50 to \$1.75 and would result in a small reduction in the percentage of cash customers that would pay an exact toll from 68 percent to about 65 percent. The additional change making would translate to slightly higher average transaction times for some cash customers.

However, E-ZPass usage during the peak hour is high, approximately 72 percent, and the overall effect on average transaction times would be relatively small. It is expected that a small shift to E-ZPass and diversion of a small number of vehicles would offset the small increase in transaction times. As a result, it is estimated that there would be no net change in processing times, queuing, and idling time resulting from the proposed toll increase.

E. Air Quality Impacts

The potential impact of the proposed toll increase on air quality was assessed, regarding both local pollutant concentrations, in the vicinity of toll plazas and access roads, and region-wide emissions burdens in non-attainment areas across New York State. The total potential increment in greenhouse gas emissions due to the effects of the proposed toll increase was also calculated.

The proposed toll increase is not predicted to significantly increase local pollutant concentrations, including carbon monoxide (CO) and particulate matter (PM). In addition, intersections identified in the CO maintenance plans in the New York City area and the Syracuse area would not be impacted.

The highest predicted increase in regional emissions of ozone precursors, PM, and greenhouse gases are expected to be minor as compared to area-wide on-road emissions. Based on the small projected changes in queuing and traffic patterns, the proposed toll increase would not result in local significant adverse air quality impacts,

and would not be expected to interfere with the CO maintenance plans in the New York and the Syracuse CO maintenance areas, the 1-hour ozone State Implementation Plan or other measures for region-wide attainment of the 1-hour ozone National Ambient Air Quality Standards (NAAQS), future regional plans for attaining the 8-hour ozone and the fine respirable particulate matter (PM_{2.5}) NAAQS in the various non-attainment areas in New York State or adjoining areas, or potential future programs for reducing greenhouse gas emissions.

Therefore, the proposed toll increase would not result in significant adverse air quality impacts on either a local or regional scale.

F. Other Impacts

Noise Impacts

Diverted volumes from the Thruway are extremely minor as compared to the existing alternative roadway volumes. According to the New York State Department of Transportation's relative noise criteria², impacts would occur if predicted future traffic noise levels substantially exceed the existing levels by six or more decibels. Since the diversions are not expected to significantly alter the mix of vehicle classes or speeds on these diversion routes, a six decibel increase could only occur if traffic volumes were to quadruple. The highest predicted increment in traffic volume on diversion routes is about 6 percent. Therefore significant noise impacts would not be expected along the alternative diversion routes as a result of the proposed toll modifications.

Land Use and Community Character

Most of the diversions from the Thruway would occur along arterials or expressways since local roadways are generally unattractive options due to slower operating speeds and frequent stops at signalized intersections. Because the diverted traffic volumes are small and there would be no significant traffic, air quality, and noise impacts associated with these small diversions, no significant adverse impact to land use and community character would occur as a result of the proposed toll increase.

Economic Impacts

The proposed toll adjustment program would result in small negative economic impacts in terms of higher out-of-pocket costs for most Thruway passenger car customers. Because the costs of operation are reflected in the shipping rates, most of the negative impacts of increased commercial vehicle tolls, which would be a small percentage of the total shipping expenses, would be passed on to the customers and dispersed among the regional economy.

² NYSDOT, 1998, *Environmental Procedures Manual, Ch. 3.1, Noise Analysis Procedures, IV(4)*.

A comparison of the proposed toll increase on the controlled ticket-system with average 2007 vehicle operating costs as reported by the American Automobile Association (AAA) indicates that the total amount of the increased E-ZPass toll as part of the toll modifications, about 0.98¢ per mile, is equivalent to 2.4 percent of the total per-mile cost of operating a compact car, about 1.9 percent of the operating costs of an intermediate-sized car, and about 1.5 percent of a SUV's operating costs for 15,000 miles per year. The total amount of the increased passenger car cash toll as part of the toll modifications, about 0.43¢ per mile, is equivalent to 1.0 percent of the total per-mile cost of operating a compact car, about 0.8 percent of the operating costs of an intermediate-sized car, and about 0.7 percent of a SUV's operating costs for 15,000 miles per year.

The extent of the impact of increased trucking costs to the trucking industry or their customers can be seen by comparing the additional toll charge to the total operating costs of the truckers. According to various trade magazines and previous studies by Stantec, the typical cost for operating a large tractor-trailer combination is \$0.85 per mile and the total operating cost including the vehicle, the driver and other expenses related to the trucking business is \$1.25 per mile. On the controlled system, the largest toll adjustment between 2008 and 2010 for most commercial vehicles is the 2.9¢ per mile toll increase when the E-ZPass discount is restored to 5 percent off the cash rate in July 2008. This amount represents an additional 3.4 percent of the operating costs of the vehicle and 2.3 percent in total operating costs per mile.

The economic benefits of the program include the reduction of existing and future congestion and delays on the Thruway, which would accrue to all Thruway customers in the numerous locations where there will be capital program improvement projects funded by the toll adjustments. The reduction in delays will have a positive impact on the regional economy. As a result, the implementation of the toll adjustment program will assure that the Thruway continues to fulfill its major role in supporting the State's economy.

The toll adjustment program will also provide temporary positive economic impacts through the creation of many thousands of jobs generated by the projects financed by the additional revenues realized with the proposed new toll rates.

Energy Use Impacts

Energy Use at Toll Plazas:

At the 53 toll plazas that are part of the controlled system, a slight reduction in energy consumption would occur because of small increases in E-ZPass usage that would result in a reduction in average transaction times as well as total processing times. Additional energy savings would occur at the plazas due to diversion of a small number of vehicles to alternate routes.

Implementation of the Authority's higher-speed and highway speed E-ZPass program, funded through the Capital Program, would continue to improve transactions times or eliminate transaction times entirely. This would have a significant beneficial economic impact to motorists in terms of time savings and reduced energy use.

At the Tappan Zee Bridge, passenger car cash tolls would increase to an even \$5.00 in January 2009, reducing transaction times and a slight decrease in energy consumption could occur. Commercial tolls would also increase in January 2009 and January 2010. While transaction times for various classes may increase, this should be offset by the shift to E-ZPass and diversion to other routes, resulting in a reduction in energy consumption at the toll plaza.

At the Grand Island Bridges, cash passenger car tolls would remain unchanged through 2011 with the proposed toll modifications. As commercial tolls increase at this barrier in January 2009, there may be a slight increase in energy consumption due to the increase in transaction times but this should be somewhat offset by a small increase in E-ZPass usage.

At the Spring Valley toll plaza, commercial cash toll increases are proposed for January 2009 and 2010. The toll increases in January 2009 lend themselves to faster transaction times, and combined with the diversions to E-ZPass and to other routes, is likely to result in an overall reduction in energy consumption. The toll increases in January 2010 would result in slower transaction times. However, a small shift to E-ZPass and diversion of a small number of trucks to other routes are likely to result in a slight overall reduction in energy consumption at the toll plaza. It should be noted that the Authority, as part of a separate action, has implemented highway speed E-ZPass at this location and E-ZPass customer transaction times and delays have been eliminated resulting in a net decrease in energy use.

At the New Rochelle, Yonkers and Harriman Toll Barriers, it is expected that the proposed January 2009 toll increase could result in a slight increase in energy consumption as cash transaction times are likely to increase slightly for passenger cars and trucks. The shift to E-ZPass usage and the small volumes of traffic diverted to other routes would help to offset some of the increase in fuel use at these toll plazas.

Energy Use along the Thruway Corridor:

A small number of vehicles are expected to divert from the Thruway in order to avoid paying a toll resulting in less energy use on the Thruway but higher energy use along the diversion routes.

The diverted traffic should use mostly expressways and arterial roadways with a lower operating speed than the Thruway. Typical speeds could be up to 35 mph lower along the diversion routes at some locations. This could cause a small decrease in fuel efficiency resulting in higher energy use for a small number of diverted vehicles. In addition, the diversion routes may not be as direct as the Thruway resulting in some

circuitry of travel. This would increase the total vehicle miles traveled and increase fuel consumption.

Fuel consumption is estimated to increase up to 0.6 percent³ (compared to the total fuel consumption along the Thruway) as a result of diverted traffic.

Net Energy Use:

In summary, there would be an increase in fuel consumption due to traffic diversion to alternate routes with longer distances, slower speeds, and stops at traffic lights; a small reduction in energy use at each of the 53 plazas on the controlled system due to an increase in E-ZPass use resulting in reduced average transaction times and diversion of some vehicles to alternate routes; and both increases and decreases in energy use at the 7 bridges/barrier locations. The overall net change in fuel consumption should not be significant.

Water Quality Impacts

No water quality impacts are expected in association with the proposed toll modifications.

Consistency with State Coastal Zone Management Policies

There are several Local Waterfront Revitalization Programs along the Thruway corridor and potential diversion routes that may be affected including those along the Hudson River, Lackawanna, and Tonawanda. Because the Proposed Action would result in small diversions to alternate routes and there would be no significant adverse impact on traffic, air quality, and community character, there would be no significant adverse impact on any any areas within an approved Local Waterfront Revitalization Program (LWRP), including coastal areas, scenic areas of statewide significance, significant fish and wildlife habitats, and important agricultural lands.

A Coastal Zone Assessment Form (CAF) has been prepared for the Proposed Action and made part of the Environmental Assessment in accordance with Part 600 Title 19 of the NYCRR certifying that the Proposed Action is consistent with the New York State coastal policies contained in NYCRR Section 600.5.

G. Conclusions

The proposed toll adjustments between July 2008 and January 2010 would result in small volumes of traffic diverted to alternate routes and no significant changes in plaza/barrier operations. There should not be any significant negative impacts on traffic, air quality, climate, noise, land use, community character, water quality, coastal zone management policies or any other environmental factor.

³ Assumes a 30 percent increase in fuel consumption for diverted trips.