

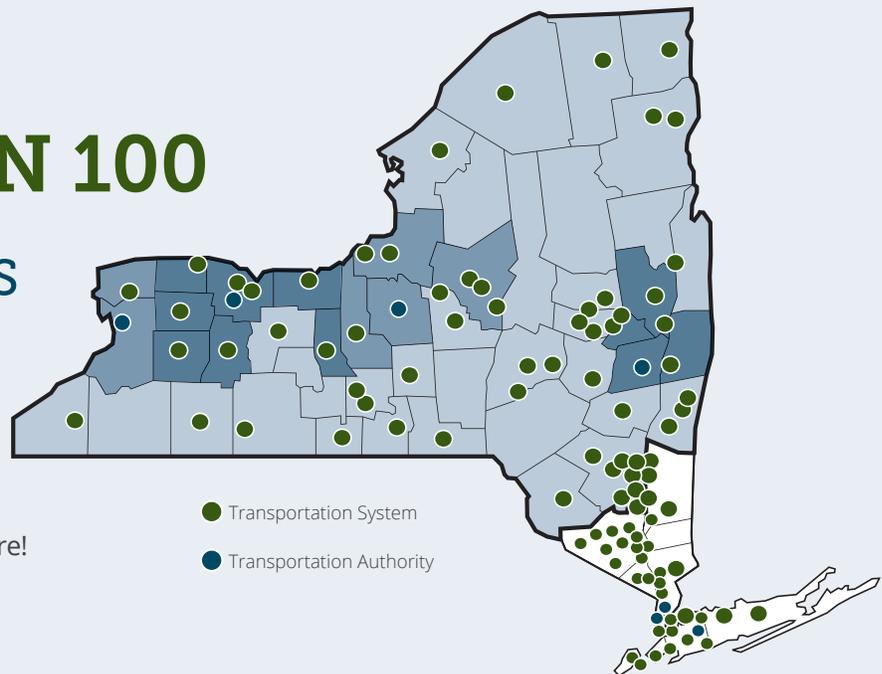


# 5-YEAR Capital Program for Upstate and Downstate Transit

# New York Public Transit Systems

## MORE THAN 100 NEW YORK STATE TRANSIT SYSTEMS

serve our communities and play a significant role in economic development. Whether it's more jobs, a cleaner environment, energy independence or a better quality of life, public transportation takes us there!



# New York Public Transit Businesses

BUSINESSES ALL OVER NEW YORK STATE CONTRIBUTE TO THE PUBLIC TRANSIT INDUSTRY AND PROVIDE THOUSANDS OF JOBS.

## NEW YORK STATE BUSINESSES

play a crucial role in providing innovative products and services to public transportation and are key contributors to the State's financial health.



# Executive Summary

New York benefits from the many public transportation services in communities across the state. These systems bring people to work, to school, to shopping and to medical appointments. They are critical components of the engine that drives New York's economy. In order to provide safe, reliable service and keep pace with increased demand, transit systems need to make capital infrastructure investments to keep vehicles and facilities in a state of good repair. Transit ridership is at record levels and growing in many areas of the state, and our communities are demanding more and better transit service.

Transit capital assets are an important component of the state's public infrastructure. Preserving transit infrastructure in a state of good repair and strategically expanding capital assets to meet growing demand is essential to providing the daily mobility that supports the state and local economy.

This report presents the infrastructure needs of urban area transit systems in Upstate New York and in Downstate Suburban Counties (other than the transit services operated by the MTA). There are over 100 transit systems that provide public transportation service outside New York City. These systems operate in nearly every county of the state and transport more than 550,000 people each day.

Upstate & Downstate Suburban County Transit Statistics	
Population	11.2 million
Counties with transit service	55 of 57
Number of transit systems	103
Daily customers	570,000
Number of urban transit vehicles	3,000 +
Annual transit trips	170,000,000

## \$1 billion in investment is needed in Upstate and Downstate Suburban County Transit infrastructure over the next 5 years.

**TABLE 1: Upstate & Downstate Suburban Capital Needs**  
SFY 2015-16 to 2019-20 Capital Program  
(millions of dollars)

	Upstate	Downstate Suburban	Total Need
<b>Core System Needs</b>			
Vehicle Cost	\$236	\$276	\$512
Facilities Cost	\$98	\$35	\$133
Other Capital Cost	\$132	\$56	\$188
<b>Total Core Need</b>	<b>\$466</b>	<b>\$367</b>	<b>\$833</b>
<b>Capacity Expansion</b>			
Vehicle Cost	\$27	\$1	\$28
Other Cost (e.g. BRT)	\$111	\$41	\$152
<b>Total Capital Need</b>	<b>\$138</b>	<b>\$42</b>	<b>\$180</b>
<b>Total Capital Need</b>	<b>\$604</b>	<b>\$409</b>	<b>\$1,013</b>

Upstate and Downstate Suburban County Transit systems have identified approximately \$1 billion in infrastructure investment that is needed over the next five years (Table 1). The first priority is to preserve existing core infrastructure. Much of this investment will replace transit vehicles as they reach the end of their useful life. Capital investments are also needed to address other infrastructure like vehicle maintenance and fueling facilities, upgrading communications equipment, and modernizing fare collection technology.

Expansion of transit service is necessary to meet growing ridership and better serve the local economy. Additional buses and new Bus Rapid Transit routes will provide higher quality transit service that meets customer demands.

**There is no multi-year state funding program to meet the infrastructure needs of systems other than the MTA.**

Capital funding for Upstate and Downstate Transit infrastructure comes largely from funding provided through the Federal Transit Administration, along with legislatively required state and local matching funds. In the past, the state has provided additional capital funding through the State Dedicated Transportation Fund and the 2005 Rebuild and Renew New York Transportation Bond Act. While the state budget has included an annual appropriation of capital funds for systems other than the MTA, these capital appropriations are rarely made available to transit systems.

**There is a \$577 million funding gap to meet Upstate and Downstate Transit infrastructure needs.**

At current funding levels (Table 2), resources available to transit systems from all levels of government are not sufficient to meet transit infrastructure needs. Expected funding will cover only 43% of capital needs, leaving a funding gap of \$577 million over the next 5 years.

**TABLE 2: Upstate & Downstate Suburban Capital Resources**  
SFY 2015-16 to 2019-20 Capital Program  
(millions of dollars)

	Upstate	Downstate Suburban	Total Resources
Federal Formula	\$161	\$70	\$231
Federal Other	\$27	\$19	\$46
State Match	\$22	\$10	\$32
State Other	\$10	\$9	\$19
Local Match	\$22	\$10	\$32
Local Other	\$45	\$31	\$76
<b>Total Resources</b>	<b>\$287</b>	<b>\$149</b>	<b>\$436</b>
<b>Total Capital Need</b>	<b>\$604</b>	<b>\$409</b>	<b>\$1,013</b>
<b>Funding Gap</b>	<b>\$317</b>	<b>\$260</b>	<b>\$577</b>

**The state’s transit systems stand ready to work with state and local officials to find solutions to fill the capital funding gap.**

The outlook for increased transit assistance from Washington is dim. The state should take a leadership role in identifying new resources for transit infrastructure investment in order to preserve and modernize these vital assets so they can continue to support the state’s economic growth.

Increasing investment in transit infrastructure over the next 5 years will lead to improved infrastructure conditions, safer and more reliable service, lower operating and maintenance costs, and reduced need for operating subsidies.

Note: The capital needs presented here are from surveys of capital needs of urbanized transit systems. NYPTA will work with NYSDOT to identify the capital needs and available funding of the state’s rural, regional and intercity systems and add that information to what is presented in this report to provide a complete picture of statewide transit infrastructure needs.



# Value of Upstate and Downstate Transit Service

## **New York State benefits in many ways from the robust transit services across the state.**

There are over 100 transit systems in New York State that provide essential service in urban and rural areas. The mobility provided by these systems supports the state and local economy by transporting people to jobs, health care, education and shopping. Transit systems buy buses, parts, equipment, and services from vendors and suppliers across the state. In essence, transit systems create and sustain thousands of jobs.

New Yorkers are using transit in record numbers, with ridership growing across the state. Each day, over 550,000 people use Upstate and Downstate Transit services. Examples of ridership growth include:

- ▶ Capital District (CDTA) – up 7% over prior year; set a new ridership record in 2013-14
- ▶ Westchester County – up 3.5% from 2011 to 2013
- ▶ Rochester (RGRTA) – up 3% over prior year
- ▶ Syracuse (CNYRTA) – up 3% over prior year
- ▶ Nassau County (NICE Bus) – third quarter up 2.5% over prior year
- ▶ Utica (CNYRTA) – up 23% since CNYRTA takeover in 2006
- ▶ Ithaca (TCAT) – up 6% over prior year; set new ridership record for 7th straight year
- ▶ Glens Falls (GGFT) – fixed route ridership up 3.5%

# Improving Efficiency and Reducing Costs

## **Transit systems are improving efficiency and reducing costs before seeking assistance from customers or government.**

New York's transit systems are at the forefront of innovation and efficiency. They are continually reducing operating and capital costs, increasing productivity, and improving services. Transit professionals recognize their responsibility to evaluate the efficiency and effectiveness of their organizations before asking for more financial assistance from their customers or government. They are partnering with business and universities to increase ridership and raise revenue. Preventive maintenance programs have extended the useful lives of buses and reduced capital costs. Other innovations and efficiencies include:

- ▶ Continuous route monitoring to adjust service based on ridership patterns
- ▶ Negotiating labor contracts that focus on wage, health benefit, and pension savings
- ▶ Installing energy efficient systems in transit vehicles and facilities
- ▶ Providing customers with more convenient fare media and technology



## Infrastructure Needs

**Sustained capital investment will preserve transit infrastructure and keep it in a state of good repair.**

Transit infrastructure investment needs fall under two categories: Core Infrastructure and Capacity Expansion. Core Infrastructure represents capital assets related to existing levels of service. Capacity Expansion includes projects which increase transit service or expand the network (additional buses to meet ridership growth or implementation of Bus Rapid Transit routes).

### CORE INFRASTRUCTURE NEEDS

Core Infrastructure includes projects to improve the state of good repair, normal replacement of assets at the end of useful service life, and system improvements that upgrade or improve assets to modern standards (new fare collection equipment for smartcards). Core needs are presented in the following categories: vehicle costs (replacing transit vehicles), facilities costs (repairing or constructing transit maintenance, terminals, and customer facilities), and other capital costs (repairing or purchasing equipment - fare boxes, shop equipment, software, etc.)

**The top priority of all transit systems is to preserve their existing infrastructure.**

- ▶ Preservation of Existing Assets: Providing safe and reliable service requires capital assets that are modern, dependable, and efficient. Transit vehicles are the largest capital component and the one that the public sees every day; however, there are many other supporting parts of infrastructure. Supporting infrastructure includes vehicle maintenance, storage and fueling facilities, fare collection and communication equipment, and bus stop signs and shelters. Keeping these assets in a state of good repair and replacing them as they wear-out requires regular capital investment.
- ▶ System Improvements: The public is demanding better service and more technology. Technological improvements include new traveler information, convenient fare collection, and real time bus location.

### CAPACITY EXPANSION

**Adding transit capacity where needed supports the growth of our communities.**

As ridership grows, service capacity is needed to meet this demand. Transit systems with growing ridership need additional vehicles to accommodate this demand. Bus Rapid Transit service has been successfully implemented in the Capital Region. Other regions are studying this option, as well as opportunities to improve operations such as transit signal priority.

# Infrastructure Conditions

## Lack of investment is worsening transit infrastructure conditions.

Being good stewards of public funds and pursuing efficiency measures have reduced the cost of providing transit service. Yet infrastructure continues to age and requires capital investment to rehabilitate, modernize and replace aging assets. The lack of resources for regular investment has delayed capital asset renewal and worsened infrastructure conditions. As these conditions negatively impact the reliability of transit service, the result is more vehicle breakdowns, ridership losses, and an unnecessary increase in vehicle maintenance expenses.

The Federal Transit Administration (FTA) threshold for the useful life of a transit bus is 12 years. Traffic congestion in downstate suburbs and the harsh climate in upstate New York limit the ability of transit systems to meet this guideline. As buses exceed their 12-year life, they become prone to in-service breakdowns requiring more maintenance and increased operating expenses. Examples of worsening infrastructure conditions include:

- ▶ NFTA in Buffalo – 21% of the fleet is beyond its useful life; average vehicle miles operated between service interruptions has worsened by 8%.
- ▶ BC Transit in Binghamton – 68% of the fleet is beyond its useful life, resulting in increased bus maintenance costs.
- ▶ CDTA in Capital Region – 25% of the fleet is beyond its useful life (14 years old), costing twice as much to maintain as the rest of the fleet.
- ▶ RGRTA in Rochester – 40 year old central maintenance facility is decaying, with a leaking roof, corrosion from winter salt, and antiquated shop equipment needing replacement.
- ▶ CNYRTA in Syracuse – The 20 year old Compressed Natural Gas (CNG) fueling facility, which fuels over 50% of the bus fleet, requires replacement. This critical infrastructure must be replaced to avoid disabling public transportation in Onondaga County.
- ▶ Watertown – Entire bus fleet is at the end of its useful life and needs replacement.



# Upstate and Downstate Suburban Transit Capital Needs

**Upstate and Downstate Transit systems require \$1 billion over the next 5 years to maintain infrastructure in a state of good repair and add capacity to address ridership demand.**

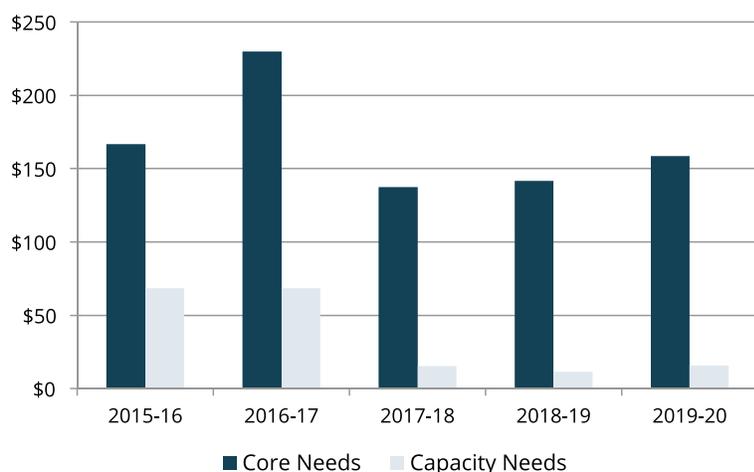
Table 1 shows an estimate of the multi-year capital needs for Upstate and Downstate transit systems (other than the MTA) that operate in urbanized areas. The results are based on transit agency multiyear capital programs and surveys of system capital needs.

The cost to replace existing transit vehicles is \$512 million over the next 5 years, which represents 61% of Core infrastructure needs. This would purchase about 545 buses upstate and 674 downstate. Repairs and improvements to existing maintenance facilities require \$133 million. The remaining Core capital need of \$188 million is required to upgrade other capital items including fare boxes and communications equipment, and light rail systems infrastructure in Buffalo (such as track, escalators, and stations).

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(millions of dollars)

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**Annual Transit Infrastructure Needs**  
(millions of dollars)



Capacity Expansion projects that were identified total \$180 million. These projects primarily consist of additional vehicles for several upstate systems to accommodate growing ridership (\$27 million for 42 new vehicles), two new BRT routes in the Capital District, and implementation of BRT in Suffolk County. Suffolk County Transit also needs 25 additional paratransit vehicles over the next 5 years to meet growing demand.

Appendix 1 lists a number of planned capital projects for many transit systems.

Note: The capital needs presented here are from surveys of capital needs of urbanized transit systems. NYPTA will work with NYSDOT to identify the capital needs and available funding of the state's rural, regional and intercity systems and add that information to what is presented in this report to provide a complete picture of statewide transit infrastructure needs.

# What Can Be Achieved With More Capital Investment

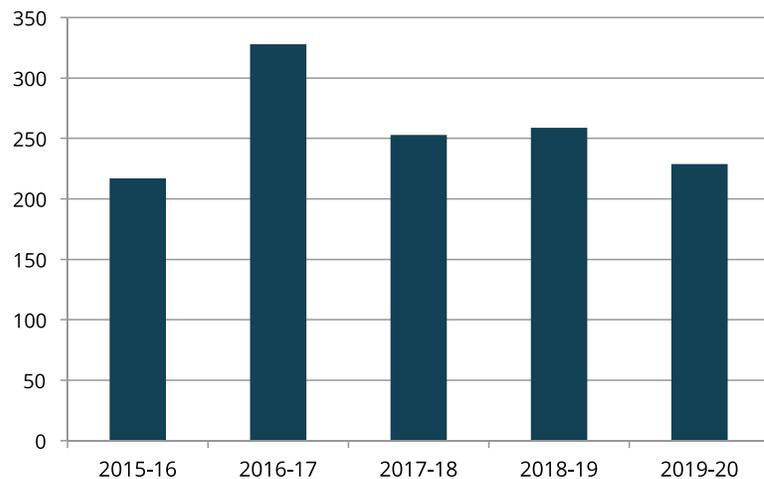
## Increasing transit infrastructure investment will improve conditions, lower costs, and increase ridership.

Meeting infrastructure needs over the next 5 years will improve infrastructure conditions, lower operating and maintenance costs, reduce the need for operating subsidies, and result in more reliable service to hundreds of thousands of customers. Funding the capital needs will allow for the purchase of over 1,200 buses, lowering the average age of system bus fleets, and reducing maintenance costs. The average age of Westchester County's bus fleet would be reduced from 9 years to less than 6 years, which is the optimal age based on the federal transit guidelines. TCAT in Ithaca would cut its average bus age from 8 years to 4 years. Most other transit systems would replace enough buses during this period to hold their fleet age at current levels.

Meeting these needs will allow transit facilities and equipment to get much needed repairs, such as roof replacements, modernization of fueling facilities, regular replacement of hybrid bus batteries, and upgrading antiquated vehicle communications systems. The 30 year old NFTA light rail system has a critical need to replace track, rebuild aging escalators, and improve tunnel ventilation.

System improvement projects would provide customers with modern fare collection and media, vehicle location technology, real time schedule information and transit signal priority. Adding capacity, expanding BRT, and implementing system improvement projects will entice more customers to transit, yielding environmental and social benefits and reducing the need for roadway expansion.

Number of Buses Needed



# Available Funding Resources

**Anticipated funding will only cover 43% of transit infrastructure needs, leaving a \$577 million funding gap.**

Capital funding for Upstate and Downstate Transit infrastructure comes from funding provided through the federal transit program, along with legislatively required state and local matching funds. Table 2 shows the estimated resources available for transit capital projects based on flat levels of funding.

## FEDERAL FORMULA FUNDING

Capital funding for Upstate and Downstate infrastructure is largely from formula funds provided by the Federal Transit Administration.

In recent years, federal discretionary grant programs covering large, unique capital projects were eliminated. It should be noted that a significant amount of federal capital funding is used by transit systems to fund preventive maintenance activities in their operating budgets, and therefore not available for capital projects.

## STATE FUNDING

The State provides a 10% matching share to federally funded capital projects. In the past, the state provided additional capital funding through the State Dedicated Transportation Fund and the 2005 Rebuild and Renew New York Transportation Bond Act, but there is no regular annual capital funding program for transit systems other than the MTA.

## LOCAL FUNDING

Local governments and regional authorities are required by the state to provide a 10% matching share to federally funded transit capital projects. Few systems have access to local capital funding beyond the required match, as local government budgets are strained.

Future funding resources are based on flat levels of federal transit aid along with the required state and local matching shares. Federal transit aid has been flat for several years, and there is no current program to increase this funding. There is no assumed transit funding from the State Dedicated Transportation Fund or other potential state sources other than the required match to federal aid. Any other federal, state, or local aid (including past balances of federal aid, federal grants or local resources) is shown in the year when used to fund a capital project.

**TABLE 2: Upstate & Downstate Suburban Capital Resources**  
SFY 2015-16 to 2019-20 Capital Program  
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Federal Formula	\$161	\$70	\$231
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<b>Total Capital Need</b>	<b>\$604</b>	<b>\$409</b>	<b>\$1,013</b>
<b>Funding Gap</b>	<b>\$317</b>	<b>\$260</b>	<b>\$577</b>

# Use of Capital Funds for Preventive Maintenance

**The lack of growth in operating assistance, especially in upstate New York, is forcing transit systems to increase the use of federal capital funding for preventive maintenance in their operating budget.**

Transit systems are compelled to fund the costs to maintain capital assets in their operating budgets. Federal guidelines allow transit capital funding to be used for preventive maintenance activities funded in operating budgets. The shortfall in funding for transit operations requires New York's transit systems to use a significant amount of their federal capital funds (one-third to one-half of each year's allocation) in their operating budgets for these preventive maintenance activities. As a result, these funds are not available to invest in infrastructure repair or replacement, leading to delays in replacing buses and modernizing facilities. Preventive maintenance investment will average over \$60 million annually for upstate and downstate systems over the next five years, a large portion of which will come from federal capital funding. Additional operating aid would allow these "preventive maintenance" funds to be used for capital investments and reduce the need for new capital resources.

## Capital Funding Gap

### UPSTATE

The 5-year transit infrastructure need is \$604 million, with expected funding resources of \$287 million, which leaves an unfunded gap of \$317 million.

### DOWNSTATE SUBURBAN COUNTIES

The 5-year transit infrastructure need is \$409 million, with expected resources of \$149 million, which leaves an unfunded gap of \$260 million.

Table 3 is a summary of the combined Upstate and Downstate Transit infrastructure needs, resources and funding gap. Appendix 2 contains the capital needs of individual transit systems.

**TABLE 3: Total Upstate and Downstate Transit Needs and Resources**  
(millions of dollars)

	Core Vehicles & Facilities	Capacity	Total Need
Total Capital Needs	\$833	\$180	\$1,013
Total Resources	\$436	\$0	\$436
<b>Total Funding Gap</b>	<b>\$397</b>	<b>\$180</b>	<b>\$577</b>



# APPENDIX 1: Example Upstate And Downstate Transit Infrastructure Projects In Next 5 Years

## CORE INFRASTRUCTURE NEEDS

Every transit system's primary Core Infrastructure need is replacement of transit vehicles. The vehicle replacement cost for upstate systems is \$236 million, or 51% of the total 5-year Upstate Core needs. This funding would replace 545 vehicles. The NFTA plans to replace 150 buses over the next 5 years: RGRTA - 125 buses, CNYRTA - 109 buses, TCAT - 30 buses, and Broome County Transit - 19 buses.

The vehicle replacement cost for Downstate systems is \$276 million, or 75% of the total 5-year downstate Core needs. This funding would replace 674 transit buses. Westchester County will need to replace 170 buses over the next 5 years (including 78 articulated buses beginning in 2016, and 108 forty-foot buses from 2018 to 2021). NICE will replace 180 buses, 83 of which will be in 2016. Suffolk County Transit plans to replace 185 buses. Other major Core projects include:

### NFTA

- ▶ \$20 m. to replace and upgrade bus and rail fare collection equipment (\$10 m. each)
- ▶ \$9.4 m. to replace and upgrade bus radio system
- ▶ \$3.9 m. to replace batteries on hybrid buses
- ▶ \$3.6 m. for maintenance facility repairs
- ▶ \$7.0 m. for CNG facility modifications and fueling system
- ▶ \$1.7 m. for Transit Center improvements
- ▶ \$0.5 m. to replace bus stop shelters
- ▶ \$24.0 m. to rebuild light rail station escalators
- ▶ \$13.0 m. for rail track work
- ▶ \$4.2 m. for subway ventilation improvements
- ▶ \$4.3 m. to replace rail catenary
- ▶ \$3.9 m. for light rail station repairs

### RGRTA

- ▶ \$23.3 m. over several years for improvements and expansion of Rochester central maintenance facilities
- ▶ \$1.2 m. to replace a portion of the radio system

- ▶ \$0.7 m. for RTS Access paratransit facility
- ▶ \$10 m. to replace operational and administrative software

### CNYRTA

- ▶ \$4.0 m. to replace Compressed Natural Gas fueling facility
- ▶ \$1.2 m. for roof replacements at several facilities
- ▶ \$1.5 m. to rehab train platform at Regional Intermodal Center
- ▶ \$1 m. to replace maintenance facility equipment

### CDTA

- ▶ \$20 m. for purchase and installation of new vehicle locator, communications and dispatching technology
- ▶ \$2.3 m. to replace batteries on hybrid buses
- ▶ \$1 m. to install/replace bus stop shelters

### NASSAU COUNTY (NICE)

- ▶ \$8.9 m. facility improvements including replacement of CNG fueling station compressors
- ▶ \$8.5 m. to replace and upgrade fareboxes
- ▶ \$1.5 m. to replace CNG facility high speed overhead doors

## WESTCHESTER COUNTY

- ▶ \$15 m. to replace and upgrade fareboxes
- ▶ \$5.7 m. to replace hybrid bus batteries
- ▶ \$8.7 m. for repairs and improvements to maintenance facilities
- ▶ \$1.5 m. for bus stop improvements
- ▶ \$1.3 m. to replace maintenance shop equipment

## SUFFOLK COUNTY

- ▶ \$6.5 m. for GPS aided vehicle locator system
- ▶ \$2.7 m. to replace fareboxes and upgrade to smartcard
- ▶ \$0.4 m. for bus stop shelters

## TCAT

- ▶ \$1.4 m. for bus stop shelters, signs and ADA improvements
- ▶ \$1.7 m. for vehicle locator system and software upgrade
- ▶ \$1.0 m. for maintenance facility improvements

## BROOME COUNTY TRANSIT

- ▶ \$260,000 to expand bus maintenance facility parking
- ▶ \$160,000 to replace 20 bus stop shelters

## CAPACITY EXPANSION PROJECT NEEDS

### ADDITIONAL VEHICLE CAPACITY

- ▶ \$11.5 m. for additional buses for CDTA's new BRT routes
- ▶ \$12.9 m. for RGRTA for 25 additional buses to meet passenger demand
- ▶ \$2.2 m. for NFTA for 5 additional buses to meet passenger demand
- ▶ \$1.4 m. for Suffolk County to purchase 25 additional paratransit vehicles to meet demand
- ▶ \$0.5 m. for TCAT for an additional bus to meet passenger demand

### BRT EXPANSION

- ▶ \$65 m. for CDTA Washington-Western Corridor BRT route
- ▶ \$6 m. for CDTA River Corridor (Albany-Troy) BRT route
- ▶ \$40 m. for Nicolls Road corridor BRT in Suffolk County

## OTHER

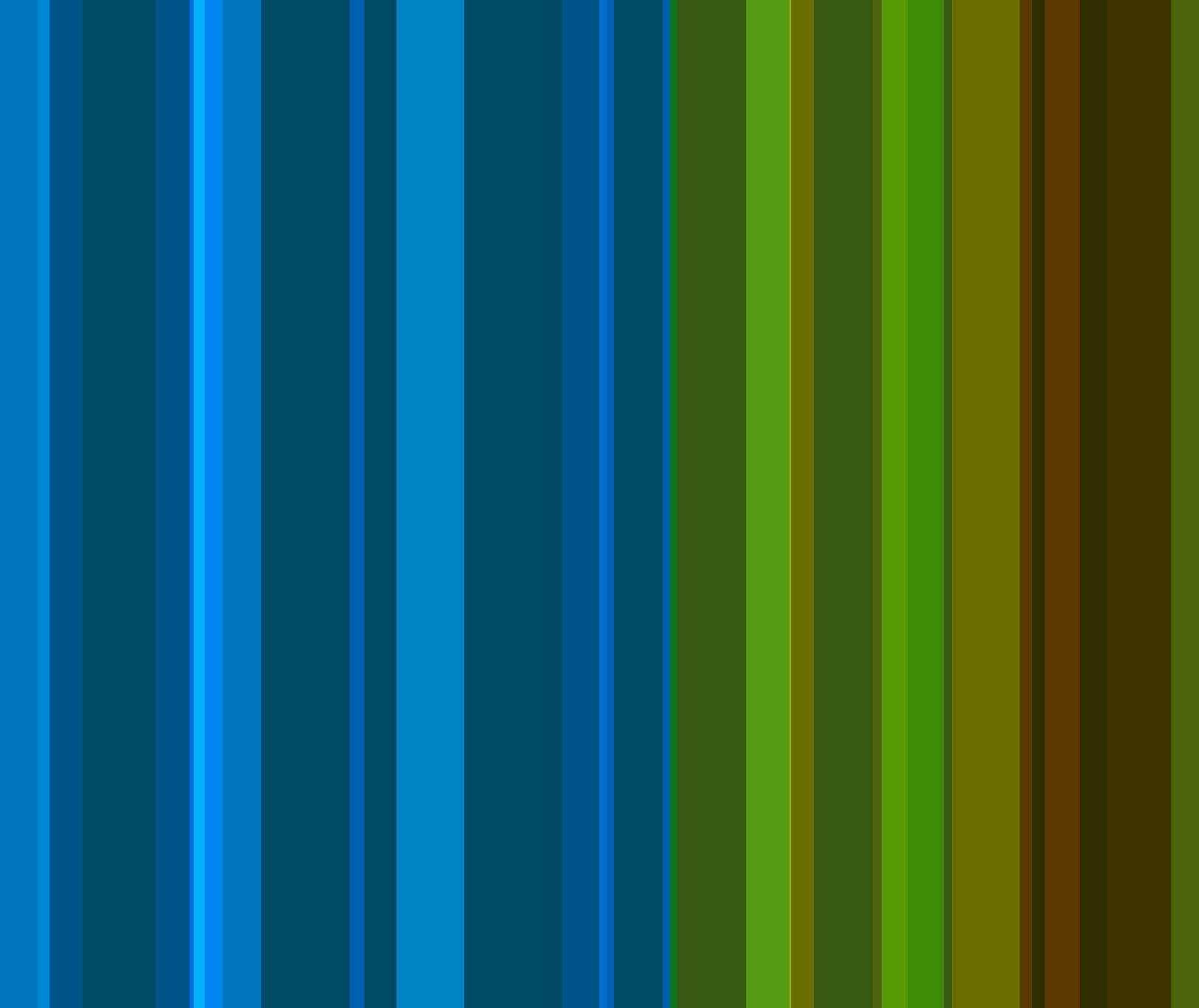
- ▶ \$35 m. for CDTA for Albany Downtown Intermodal Center

# APPENDIX 2: Combined Upstate 5-Year Capital Needs (thousands of dollars)

Capital Needs Categories	CY 2015 or SFY 2015-16			CY 2016 or SFY 2016-17			CY 2017 or SFY 2017-18			CY 2018 or SFY 2018-19			CY 2019 or SFY 2019-20			5-Year Total		
	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total
RGRTA Vehicle Costs	\$437	\$2,342	\$2,779	\$16,004	\$2,517	\$18,521	\$10,774	\$2,590	\$13,364	\$964	\$2,668	\$3,632	\$13,316	\$2,800	\$16,116	\$41,495	\$12,917	\$54,412
CDTA Vehicle Costs	\$8,680	\$1,600	\$10,280	\$5,562	\$2,369	\$7,931	\$5,729	\$2,440	\$8,169	\$5,901	\$2,513	\$8,414	\$6,078	\$2,589	\$8,666	\$31,949	\$11,511	\$43,460
Centro Vehicle Costs	\$4,750	\$0	\$4,750	\$5,070	\$0	\$5,070	\$21,145	\$0	\$21,145	\$3,605	\$0	\$3,605	\$7,373	\$0	\$7,373	\$41,943	\$0	\$41,943
NFTA Bus Vehicle Costs	\$12,942	\$2,180	\$15,122	\$13,821	\$0	\$13,821	\$13,600	\$0	\$13,600	\$15,276	\$0	\$15,276	\$16,040	\$0	\$16,040	\$71,679	\$2,180	\$73,859
NFTA Rail Vehicle Costs	\$8,771	\$0	\$8,771	\$3,436	\$0	\$3,436	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,207	\$0	\$12,207
<b>AUTHORITY TOTAL VEHICLE COSTS</b>	<b>\$35,580</b>	<b>\$6,122</b>	<b>\$41,702</b>	<b>\$43,893</b>	<b>\$4,886</b>	<b>\$48,779</b>	<b>\$51,248</b>	<b>\$5,030</b>	<b>\$56,278</b>	<b>\$25,746</b>	<b>\$5,181</b>	<b>\$30,927</b>	<b>\$42,807</b>	<b>\$5,389</b>	<b>\$48,195</b>	<b>\$199,273</b>	<b>\$26,608</b>	<b>\$225,881</b>
Broome Vehicle Costs	\$1,314	\$0	\$1,314	\$1,760	\$0	\$1,760	\$1,760	\$0	\$1,760	\$1,780	\$0	\$1,780	\$1,800	\$0	\$1,800	\$8,414	\$0	\$8,414
TCAT Vehicles Costs	\$898	\$0	\$898	\$6,480	\$463	\$6,943	\$0	\$0	\$0	\$5,193	\$0	\$5,193	\$1,416	\$0	\$1,416	\$13,987	\$463	\$14,450
Chemung Vehicle Costs	\$1,117	\$0	\$1,117	\$0	\$0	\$0	\$2,500	\$0	\$2,500	\$0	\$0	\$0	\$300	\$0	\$300	\$3,917	\$0	\$3,917
GGFT Vehicle Costs	\$205	\$0	\$205	\$615	\$0	\$615	\$140	\$0	\$140	\$350	\$0	\$350	\$2,100	\$0	\$2,100	\$3,410	\$0	\$3,410
Other Upstate Systems	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$7,000	\$0	\$7,000
<b>SMALL SYSTEM TOTAL VEHICLE COSTS</b>	<b>\$4,934</b>	<b>\$0</b>	<b>\$4,934</b>	<b>\$10,255</b>	<b>\$463</b>	<b>\$10,718</b>	<b>\$5,800</b>	<b>\$0</b>	<b>\$5,800</b>	<b>\$8,723</b>	<b>\$0</b>	<b>\$8,723</b>	<b>\$7,016</b>	<b>\$0</b>	<b>\$7,016</b>	<b>\$36,728</b>	<b>\$463</b>	<b>\$37,191</b>
<b>UPSTATE TOTAL VEHICLE COSTS</b>	<b>\$40,514</b>	<b>\$6,122</b>	<b>\$46,636</b>	<b>\$54,148</b>	<b>\$5,349</b>	<b>\$59,497</b>	<b>\$57,048</b>	<b>\$5,030</b>	<b>\$62,078</b>	<b>\$34,469</b>	<b>\$5,181</b>	<b>\$39,650</b>	<b>\$49,823</b>	<b>\$5,389</b>	<b>\$55,211</b>	<b>\$236,001</b>	<b>\$27,071</b>	<b>\$263,072</b>
RGRTA Facilities	\$6,342	\$0	\$6,342	\$6,578	\$0	\$6,578	\$0	\$0	\$0	\$2,148	\$0	\$2,148	\$7,250	\$0	\$7,250	\$22,318	\$0	\$22,318
CDTA Facilities	\$1,916	\$18,025	\$19,941	\$1,545	\$18,025	\$19,570	\$670	\$0	\$670	\$1,236	\$0	\$1,236	\$1,273	\$0	\$1,273	\$6,640	\$36,050	\$42,690
Centro Facilities	\$1,475	\$0	\$1,475	\$0	\$0	\$0	\$4,000	\$0	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,475	\$0	\$5,475
NFTA Bus Facilities	\$6,829	\$0	\$6,829	\$2,956	\$0	\$2,956	\$778	\$0	\$778	\$462	\$0	\$462	\$467	\$0	\$467	\$11,492	\$0	\$11,492
NFTA Rail Facilities	\$10,928	\$0	\$10,928	\$18,507	\$0	\$18,507	\$5,313	\$0	\$5,313	\$6,170	\$0	\$6,170	\$6,250	\$0	\$6,250	\$47,168	\$0	\$47,168
<b>AUTHORITY TOTAL FACILITIES COSTS</b>	<b>\$27,490</b>	<b>\$18,025</b>	<b>\$45,515</b>	<b>\$29,586</b>	<b>\$18,025</b>	<b>\$47,611</b>	<b>\$10,761</b>	<b>\$0</b>	<b>\$10,761</b>	<b>\$10,016</b>	<b>\$0</b>	<b>\$10,016</b>	<b>\$15,240</b>	<b>\$0</b>	<b>\$15,240</b>	<b>\$93,093</b>	<b>\$36,050</b>	<b>\$129,143</b>
Broome Facilities	\$260	\$0	\$260	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$260	\$0	\$260
TCAT Facilities	\$485	\$0	\$485	\$157	\$0	\$157	\$150	\$0	\$150	\$117	\$0	\$117	\$117	\$0	\$117	\$1,026	\$0	\$1,026
Chemung Facilities	\$0	\$0	\$0	\$500	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$500
GGFT Facilities	\$75	\$0	\$75	\$50	\$0	\$50	\$100	\$0	\$100	\$100	\$0	\$100	\$0	\$0	\$0	\$325	\$0	\$325
Other Upstate Systems	\$600	\$0	\$600	\$600	\$0	\$600	\$600	\$0	\$600	\$600	\$0	\$600	\$600	\$0	\$600	\$3,000	\$0	\$3,000
<b>SMALL SYSTEM TOTAL FACILITIES COSTS</b>	<b>\$1,420</b>	<b>\$0</b>	<b>\$820</b>	<b>\$1,307</b>	<b>\$0</b>	<b>\$707</b>	<b>\$850</b>	<b>\$0</b>	<b>\$250</b>	<b>\$817</b>	<b>\$0</b>	<b>\$217</b>	<b>\$717</b>	<b>\$0</b>	<b>\$117</b>	<b>\$5,111</b>	<b>\$0</b>	<b>\$5,111</b>
<b>UPSTATE TOTAL FACILITIES COSTS</b>	<b>\$28,910</b>	<b>\$18,025</b>	<b>\$46,935</b>	<b>\$30,893</b>	<b>\$18,025</b>	<b>\$48,318</b>	<b>\$11,611</b>	<b>\$0</b>	<b>\$11,011</b>	<b>\$10,833</b>	<b>\$0</b>	<b>\$10,233</b>	<b>\$15,957</b>	<b>\$0</b>	<b>\$15,357</b>	<b>\$98,204</b>	<b>\$36,050</b>	<b>\$134,254</b>
RGRTA Other Capital	\$8,157	\$0	\$8,157	\$2,035	\$0	\$2,035	\$371	\$0	\$371	\$499	\$0	\$499	\$446	\$0	\$446	\$11,508	\$0	\$11,508
CDTA Other Capital	\$4,212	\$36,565	\$40,777	\$24,557	\$37,662	\$62,219	\$3,741	\$0	\$3,741	\$3,286	\$0	\$3,286	\$3,384	\$0	\$3,384	\$39,180	\$74,227	\$113,407
Centro Other Capital	\$2,227	\$0	\$2,227	\$263	\$0	\$263	\$880	\$0	\$880	\$424	\$0	\$424	\$469	\$0	\$469	\$4,263	\$0	\$4,263
NFTA Bus Other Capital	\$7,042	\$399	\$7,441	\$9,179	\$0	\$9,179	\$6,277	\$0	\$6,277	\$1,181	\$0	\$1,181	\$2,447	\$0	\$2,447	\$26,126	\$399	\$26,525
NFTA Rail Other Capital	\$14,032	\$0	\$14,032	\$8,883	\$0	\$8,883	\$6,610	\$0	\$6,610	\$3,839	\$0	\$3,839	\$8,344	\$0	\$8,344	\$41,708	\$0	\$41,708
<b>AUTHORITY TOTAL OTHER CAPITAL COSTS</b>	<b>\$35,670</b>	<b>\$36,964</b>	<b>\$72,634</b>	<b>\$44,917</b>	<b>\$37,662</b>	<b>\$82,579</b>	<b>\$17,879</b>	<b>\$0</b>	<b>\$17,879</b>	<b>\$9,229</b>	<b>\$0</b>	<b>\$9,229</b>	<b>\$15,090</b>	<b>\$0</b>	<b>\$15,090</b>	<b>\$122,785</b>	<b>\$74,626</b>	<b>\$197,411</b>
Broome Other Capital	\$75	\$0	\$75	\$160	\$0	\$160	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$235	\$0	\$235
TCAT Other Capital	\$626	\$0	\$626	\$2,280	\$0	\$2,280	\$1,561	\$0	\$1,561	\$677	\$0	\$677	\$120	\$0	\$120	\$5,264	\$0	\$5,264
Chemung Other Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GGFT Other Capital	\$200	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200	\$0	\$200
Other Upstate Systems	\$800	\$0	\$800	\$800	\$0	\$800	\$800	\$0	\$800	\$800	\$0	\$800	\$800	\$0	\$800	\$4,000	\$0	\$4,000
<b>SMALL SYSTEM TOTAL OTHER CAPITAL COSTS</b>	<b>\$1,701</b>	<b>\$0</b>	<b>\$901</b>	<b>\$3,240</b>	<b>\$0</b>	<b>\$2,440</b>	<b>\$2,361</b>	<b>\$0</b>	<b>\$1,561</b>	<b>\$1,477</b>	<b>\$0</b>	<b>\$677</b>	<b>\$920</b>	<b>\$0</b>	<b>\$120</b>	<b>\$9,699</b>	<b>\$0</b>	<b>\$9,699</b>
<b>UPSTATE TOTAL OTHER CAPITAL COSTS</b>	<b>\$37,371</b>	<b>\$36,964</b>	<b>\$74,335</b>	<b>\$48,157</b>	<b>\$37,662</b>	<b>\$85,019</b>	<b>\$20,240</b>	<b>\$0</b>	<b>\$19,440</b>	<b>\$10,706</b>	<b>\$0</b>	<b>\$9,906</b>	<b>\$16,010</b>	<b>\$0</b>	<b>\$15,210</b>	<b>\$132,484</b>	<b>\$74,626</b>	<b>\$207,110</b>
<b>UPSTATE TOTAL CAPITAL NEEDS</b>	<b>\$106,795</b>	<b>\$61,111</b>	<b>\$166,506</b>	<b>\$133,198</b>	<b>\$61,036</b>	<b>\$192,834</b>	<b>\$88,899</b>	<b>\$5,030</b>	<b>\$92,529</b>	<b>\$56,008</b>	<b>\$5,181</b>	<b>\$59,789</b>	<b>\$81,790</b>	<b>\$5,389</b>	<b>\$85,778</b>	<b>\$466,689</b>	<b>\$137,747</b>	<b>\$604,436</b>
<b>Transit Vehicles</b>																		
RGRTA Vehicles Purchased	6	5	11	42	5	47	31	5	36	12	5	17	34	5	39	125	25	150
CDTA Vehicles Purchased	18	2	20	12	3	15	12	2	14	12	2	14	12	2	14	66	11	77
Centro Vehicles purchased	16	0	16	13	0	13	49	0	49	9	0	9	22	0	22	109	0	109
NFTA Bus Vehicles Purchased	30	5	35	30	0	30	30	0	30	30	0	30	30	0	30	150	5	155
<b>AUTHORITY TOTAL VEHICLES PURCHASED</b>	<b>70</b>	<b>12</b>	<b>82</b>	<b>97</b>	<b>8</b>	<b>105</b>	<b>122</b>	<b>7</b>	<b>129</b>	<b>63</b>	<b>7</b>	<b>70</b>	<b>98</b>	<b>7</b>	<b>105</b>	<b>450</b>	<b>41</b>	<b>491</b>
Broome Vehicles Purchased	3	0	3	4	0	4	4	0	4	4	0	4	4	0	4	19	0	19
TCAT Vehicles Purchased	2	0	2	14	1	15	0	0	0	11	0	11	3	0	3	30	1	31
Chemung Vehicles Purchased	6	0	6	0	0	0	8	0	8	0	0	0	2	0	2	16	0	16
GGFT Vehicles Purchased	1	0	1	0	0	0	2	0	2	5	0	5	6	0	6	14	0	14
Other Upstate Systems	3	0	3	3	0	3	3	0	3	3	0	3	4	0	4	16	0	16
<b>SMALL SYSTEMS TOTAL VEHICLES PURCHASED</b>	<b>15</b>	<b>0</b>	<b>12</b>	<b>21</b>	<b>1</b>	<b>19</b>	<b>17</b>	<b>0</b>	<b>14</b>	<b>23</b>	<b>0</b>	<b>20</b>	<b>19</b>	<b>0</b>	<b>15</b>	<b>95</b>	<b>1</b>	<b>96</b>
<b>UPSTATE TOTAL VEHICLES PURCHASED</b>	<b>85</b>	<b>12</b>	<b>94</b>	<b>118</b>	<b>9</b>	<b>124</b>	<b>139</b>	<b>7</b>	<b>143</b>	<b>86</b>	<b>7</b>	<b>90</b>	<b>117</b>	<b>7</b>	<b>120</b>	<b>545</b>	<b>42</b>	<b>587</b>
<b>Preventive Maintenance</b>																		
RGRTA PM			\$5,673			\$5,691			\$5,796			\$5,924			\$5,871			\$28,955
CDTA PM			\$10,204			\$10,510			\$10,825			\$11,150			\$11,485			\$54,174
Centro PM			\$6,083			\$6,265			\$6,453			\$6,647			\$6,846			\$32,294
NFTA Bus PM			\$11,375			\$11,375			\$11,375			\$11,375			\$11,375			\$56,875
<b>AUTHORITY TOTAL PM</b>			<b>\$33,335</b>			<b>\$33,841</b>			<b>\$34,449</b>			<b>\$35,096</b>			<b>\$35,577</b>			<b>\$172,298</b>
Broome			\$2,148			\$2,191			\$2,235			\$2,280			\$2,326			\$11,180
TCAT			\$918			\$945			\$974			\$1,003			\$1,033			\$4,843
Chemung			\$750			\$750			\$750			\$750			\$750			\$3,750
GGFT			\$102			\$105			\$108			\$111			\$115			\$541
<b>SMALL SYSTEM TOTAL PM</b>			<b>\$3,918</b>															

# APPENDIX 2: Combined Downstate 5-Year Capital Needs (thousands of dollars)

Capital Needs Categories	CY 2015 or SFY 2015-16			CY 2016 or SFY 2016-17			CY 2017 or SFY 2017-18			CY 2018 or SFY 2018-19			CY 2019 or SFY 2019-20			5-Year Total		
	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total	Core	Capacity	Total
NICE Vehicle Costs	\$21,500	\$0	\$21,500	\$32,400	\$0	\$32,400	\$3,250	\$0	\$3,250	\$3,500	\$0	\$3,500	\$0	\$0	\$0	\$60,650	\$0	\$60,650
Westchester Vehicle Costs	\$1,378	\$0	\$1,378	\$11,346	\$0	\$11,346	\$21,600	\$0	\$21,600	\$37,850	\$0	\$37,850	\$33,350	\$0	\$33,350	\$105,524	\$0	\$105,524
Suffolk Vehicle Costs	\$1,288	\$258	\$1,546	\$20,422	\$265	\$20,687	\$1,366	\$273	\$1,639	\$21,666	\$281	\$21,947	\$1,449	\$290	\$1,739	\$46,191	\$1,367	\$47,558
Subtotal Counties Vehicle Costs	\$24,166	\$258	\$24,424	\$64,168	\$265	\$64,433	\$26,216	\$273	\$26,489	\$63,016	\$281	\$63,297	\$34,799	\$290	\$35,089	\$212,365	\$1,367	\$213,732
Other Downstate Bus Vehicle Costs	\$12,800	\$0	\$12,800	\$12,800	\$0	\$12,800	\$12,800	\$0	\$12,800	\$12,800	\$0	\$12,800	\$12,800	\$0	\$12,800	\$64,000	\$0	\$64,000
<b>DOWNSTATE TOTAL VEHICLE COSTS</b>	<b>\$36,966</b>	<b>\$258</b>	<b>\$37,224</b>	<b>\$76,968</b>	<b>\$265</b>	<b>\$77,233</b>	<b>\$39,016</b>	<b>\$273</b>	<b>\$39,289</b>	<b>\$75,816</b>	<b>\$281</b>	<b>\$76,097</b>	<b>\$47,599</b>	<b>\$290</b>	<b>\$47,889</b>	<b>\$276,365</b>	<b>\$1,367</b>	<b>\$277,732</b>
NICE Facilities	\$1,500	\$0	\$1,500	\$1,250	\$0	\$1,250	\$1,198	\$0	\$1,198	\$4,046	\$0	\$4,046	\$2,500	\$0	\$2,500	\$10,494	\$0	\$10,494
Westchester Facilities	\$7,003	\$0	\$7,003	\$8,370	\$0	\$8,370	\$1,726	\$0	\$1,726	\$750	\$0	\$750	\$0	\$0	\$0	\$17,849	\$0	\$17,849
Suffolk Facilities	\$0	\$150	\$150	\$0	\$150	\$150	\$0	\$100	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$400
Subtotal Counties Facilities Costs	\$8,503	\$150	\$8,653	\$9,620	\$150	\$9,770	\$2,924	\$100	\$3,024	\$4,796	\$0	\$4,796	\$2,500	\$0	\$2,500	\$28,343	\$400	\$28,743
Other Downstate Bus Facilities Costs	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400	\$7,000	\$0	\$7,000
<b>DOWNSTATE TOTAL FACILITIES COSTS</b>	<b>\$9,903</b>	<b>\$150</b>	<b>\$10,053</b>	<b>\$11,020</b>	<b>\$150</b>	<b>\$11,170</b>	<b>\$4,324</b>	<b>\$100</b>	<b>\$4,424</b>	<b>\$6,196</b>	<b>\$0</b>	<b>\$6,196</b>	<b>\$3,900</b>	<b>\$0</b>	<b>\$3,900</b>	<b>\$35,343</b>	<b>\$400</b>	<b>\$35,743</b>
NICE Other Capital	\$1,530	\$0	\$1,530	\$800	\$0	\$800	\$2,880	\$0	\$2,880	\$1,900	\$0	\$1,900	\$8,475	\$0	\$8,475	\$15,585	\$0	\$15,585
Westchester Other Capital	\$500	\$0	\$500	\$6,200	\$0	\$6,200	\$500	\$0	\$500	\$0	\$0	\$0	\$15,000	\$0	\$15,000	\$22,200	\$0	\$22,200
Suffolk Other Capital	\$9,200	\$7,000	\$16,200	\$0	\$7,000	\$7,000	\$0	\$10,000	\$10,000	\$0	\$6,000	\$6,000	\$0	\$10,000	\$9,200	\$40,000	\$49,200	
Subtotal Counties Other Capital Costs	\$11,230	\$7,000	\$18,230	\$7,000	\$7,000	\$14,000	\$3,380	\$10,000	\$13,380	\$1,900	\$6,000	\$7,900	\$23,475	\$10,000	\$33,475	\$46,985	\$40,000	\$86,985
Other Downstate Bus Other Capital Costs	\$1,800	\$0	\$1,800	\$1,800	\$0	\$1,800	\$1,800	\$0	\$1,800	\$1,800	\$0	\$1,800	\$1,800	\$0	\$1,800	\$9,000	\$0	\$9,000
<b>DOWNSTATE TOTAL OTHER CAPITAL COSTS</b>	<b>\$13,030</b>	<b>\$7,000</b>	<b>\$20,030</b>	<b>\$8,800</b>	<b>\$7,000</b>	<b>\$15,800</b>	<b>\$5,180</b>	<b>\$10,000</b>	<b>\$15,180</b>	<b>\$3,700</b>	<b>\$6,000</b>	<b>\$9,700</b>	<b>\$25,275</b>	<b>\$10,000</b>	<b>\$35,275</b>	<b>\$55,985</b>	<b>\$40,000</b>	<b>\$95,985</b>
<b>DOWNSTATE TOTAL CAPITAL NEEDS</b>	<b>\$59,899</b>	<b>\$7,408</b>	<b>\$67,307</b>	<b>\$96,788</b>	<b>\$7,415</b>	<b>\$104,203</b>	<b>\$48,520</b>	<b>\$10,373</b>	<b>\$58,893</b>	<b>\$85,712</b>	<b>\$6,281</b>	<b>\$91,993</b>	<b>\$76,774</b>	<b>\$10,290</b>	<b>\$87,064</b>	<b>\$367,693</b>	<b>\$41,767</b>	<b>\$409,460</b>
<b>Transit Vehicles</b>																		
NICE Vehicles Purchased	43	0	43	83	0	83	26	0	26	28	0	28	0	0	0	180	0	180
Westchester Vehicles Purchased	20	0	20	31	0	31	24	0	24	50	0	50	45	0	45	170	0	170
Suffolk Vehicles Purchased	25	5	30	55	5	60	25	5	30	55	5	60	25	5	30	185	25	210
Subtotal Counties Vehicles Purchased	88	5	93	169	5	174	75	5	80	133	5	138	70	5	75	535	25	560
Other Downstate Bus Vehicles Purchased	27		27	27		27	27		27	28		28	30		30	139	0	139
<b>DOWNSTATE TOTAL VEHICLES PURCHASED</b>	<b>115</b>	<b>5</b>	<b>120</b>	<b>196</b>	<b>5</b>	<b>201</b>	<b>102</b>	<b>5</b>	<b>107</b>	<b>161</b>	<b>5</b>	<b>166</b>	<b>100</b>	<b>5</b>	<b>105</b>	<b>674</b>	<b>25</b>	<b>699</b>
<b>Preventive Maintenance</b>																		
NICE PM			\$6,000			\$6,000			\$6,000			\$6,000			\$6,000			\$30,000
Westchester PM			\$11,250			\$11,250			\$11,250			\$11,250			\$11,250			\$56,250
Suffolk PM			\$6,083			\$6,265			\$6,453			\$6,647			\$6,846			\$32,294
County Subtotal PM			\$23,333			\$23,515			\$23,703			\$23,897			\$24,096			\$118,544
Other Downstate Bus Total PM			\$0			\$0			\$0			\$0			\$0			\$0
<b>DOWNSTATE TOTAL PM COSTS</b>			<b>\$23,333</b>			<b>\$23,515</b>			<b>\$23,703</b>			<b>\$23,897</b>			<b>\$24,096</b>			<b>\$118,544</b>



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