
ZERO EMISSION BUSING

IMPLEMENTATION PROGRESS REPORT

**Prepared for the Governor, the
temporary President of the State
Senate, and the Speaker of the
State Assembly**

OCTOBER 2024

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INTRODUCTION	6
Background and Acknowledgements.....	7
Reporting Structure.....	8
STATEWIDE ANALYSIS	10
Statewide Reporting.....	11
Response Rate.....	11
Transportation Means	12
Bus Fleet Overview.....	13
Infrastructure Overview	16
Utility Assessment	17
Funding the Transition	19
Workforce Development.....	23
Analysis of Statewide Reporting	24
LABOR MARKET REGION ANALYSIS.....	25
Western New York Region.....	26
Regional Summary and Response Rate	26
Transportation Means	28
Bus Fleets.....	29
Infrastructure Assessment	31
Electric Service	32
Charging Stations and Infrastructure	33
Finger Lakes Region.....	35
Regional Summary and Response Rate	35
Transportation Means	37
Bus Fleets.....	38
Infrastructure Assessment	40
Electric Service	41
Charging Stations and Infrastructure	42
Central New York Region.....	44
Regional Summary and Response Rate	44
Transportation Means	45
Bus Fleets.....	46
Infrastructure Assessment	48
Electric Service	49

Charging Stations and Infrastructure	50
Southern Tier Region	52
Regional Summary and Response Rate	52
Transportation Means	54
Bus Fleets.....	55
Infrastructure Assessment	57
Electric Service	58
Charging Stations and Infrastructure	59
North Country Region.....	61
Regional Summary and Response Rate	61
Transportation Means	63
Bus Fleets.....	63
Infrastructure Assessment	66
Electric Service	67
Charging Stations and Infrastructure	68
Mohawk Valley Region.....	70
Regional Summary and Response Rate	70
Transportation Means	72
Bus Fleets.....	72
Infrastructure Assessment	74
Electric Service	75
Charging Stations and Infrastructure	76
Capital Region	78
Transportation Means	80
Bus Fleets.....	81
Infrastructure Assessment	83
Electric Service	84
Charging Stations and Infrastructure	85
Hudson Valley Region	87
Regional Summary and Response Rate	87
Transportation Means	90
Bus Fleets.....	90
Infrastructure Assessment	93
Electric Service	94

Charging Stations and Infrastructure	95
Long Island Region.....	97
Transportation Means	100
Bus Fleets.....	101
Infrastructure Assessment	103
Electric Service	104
Charging Stations and Infrastructure	105
New York City Region.....	107
Appendix.....	108
LEGISLATIVE MANDATE.....	109
SECTION ONE – SUMMARY	110
SECTION TWO – EXISTING ELECTRIC SCHOOL BUSES IN NEW YORK CITY AND PROGRESS ON INFRASTRUCTURE.....	111
SECTION THREE – INDUSTRY-WIDE VIEW OF ELECTRIC SCHOOL BUSES....	113
SECTION FOUR – EXISTING GRANT OVERVIEW.....	114
ACKNOWLEDGEMENTS.....	116

INTRODUCTION

Background and Acknowledgements

New York State Education Law §3638 requires that all school buses in New York State must be zero-emission vehicles by the year 2035, with the addition that all buses purchased by school districts or third-party transportation service providers after June 30, 2027, must be zero-emission vehicles. At the present time, the only option available at scale that complies with statutory requirements is electrification of bus fleets.

Included in the Law is a requirement that, beginning in 2024, every school district shall annually submit to the Commissioner of Education, no later than August 1, a progress report on the implementation of zero-emission school buses as required by the Law. Such reporting must include, but not be limited to:

- (i) sufficiency of the school district's electric infrastructure to support anticipated electrical needs;
- (ii) the availability and installation of charging or fueling stations and other components and capital infrastructure required to support the transition to and full implementation of zero-emission school buses;
- (iii) whether the workforce development report pursuant to paragraph (c) of subdivision five of this section [§3638 of The Education Law] has been created and implemented;
- (iv) the number and proportion of zero-emission school buses the school district or any contractor providing transportation services is utilizing in the current school year; and
- (v) the number and proportion of zero-emission school buses purchased or leased by the school district or any contractor providing transportation services in the current school year and the total anticipated number for the next two years.

School district reporting must then be used to inform a comprehensive annual report prepared by the New York State Education Department (NYSED or “the Department”) on the Statewide progress of implementation of zero-emission school buses, due to the Governor, the temporary President of the State Senate, and the Speaker of the State Assembly by October 1, also beginning in 2024.

To address this statutory requirement, NYSED developed a survey designed to create a baseline set of data to be used as a comparison with future years and to inform the development of guidance and informal benchmarks. In collecting data and information on current and anticipated fleet sizes, charging stations and infrastructure needs, electric service sufficiency, planning/outreach, and ballot proposition outcomes, NYSED captured information on the impacts of the mandated transition to zero emission buses, in addition to the assessment data necessary to generate this report.

It is important to note that NYSED worked closely with State agency colleagues at the New York State Energy and Research Development Authority (“NYSERDA”) and the New York State Department of Public Service (“DPS”), and with stakeholder groups such as the Joint Utilities of New York (“JU”), Public Service Enterprise Group-Long Island (“PSEG-LI”), and the New York School Bus Contractors Association (“NYSBCA”) to gather and verify information and data on school districts. Data provided by these organizations is used extensively throughout this report, and NYSED would like to acknowledge and thank them for their assistance and collaboration.

Reporting Structure

The following report is divided into three (3) main sections: an introduction with background information and acknowledgements, a series of statewide analyses, and a brief look at relevant datapoints for each New York State Labor Market Region. NYSED includes data visualizations in the form of charts, maps, and graphs displayed in-line with the text to the greatest extent possible. Textual analyses are presented in advance of accompanying charts and graphs. However, due to image sizing limitations and to ensure appropriate readability, some charts and graphs are presented on a separate page. Finally, numerical reporting and analyses in this report, including Statewide statistics, do not include data pertaining to the New York City Labor Market Region, which is served by the sole New York City School District. Basic geographic and enrollment data for the district, however, are included in the New York City Regional Summary section of this report. With permission from the New York City School District, a report detailing the District’s current progress toward transitioning to zero emission busing produced by the

District for the New York City Council in June 2024 is appended to this report as Appendix 1.

List of Abbreviations Used in Reporting

ConEd – Consolidated Edison Company of New York

FAS – Fleet Assessment

FEP – Fleet Electrification Plan

JU – Joint Utilities of New York

NYPA – New York Power Authority

NYSBCA – New York School Bus Contractors Association

NYSDPS – New York State Department of Public Service

NYSED – New York State Education Department

NYSERDA – New York State Energy Research and Development Authority

PSEG-LI – Public Service Enterprise Group of Long Island

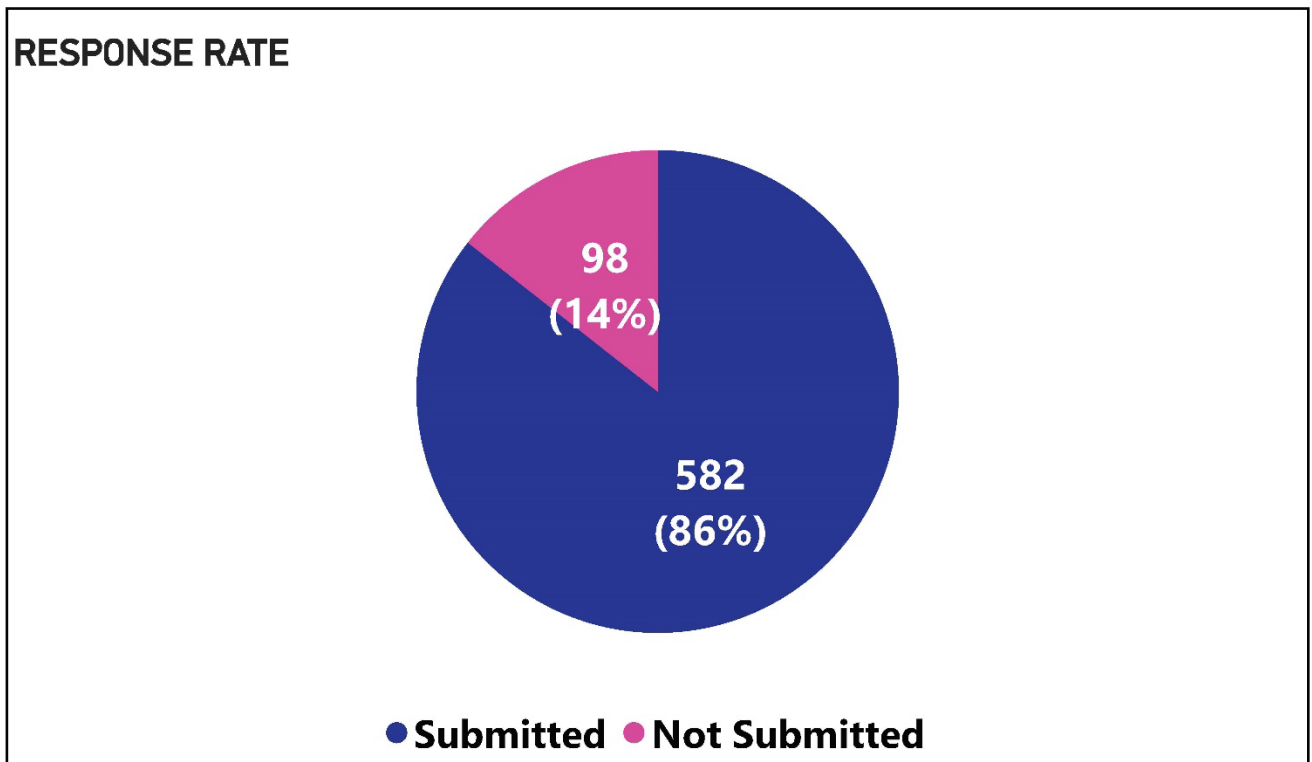
STATEWIDE ANALYSIS

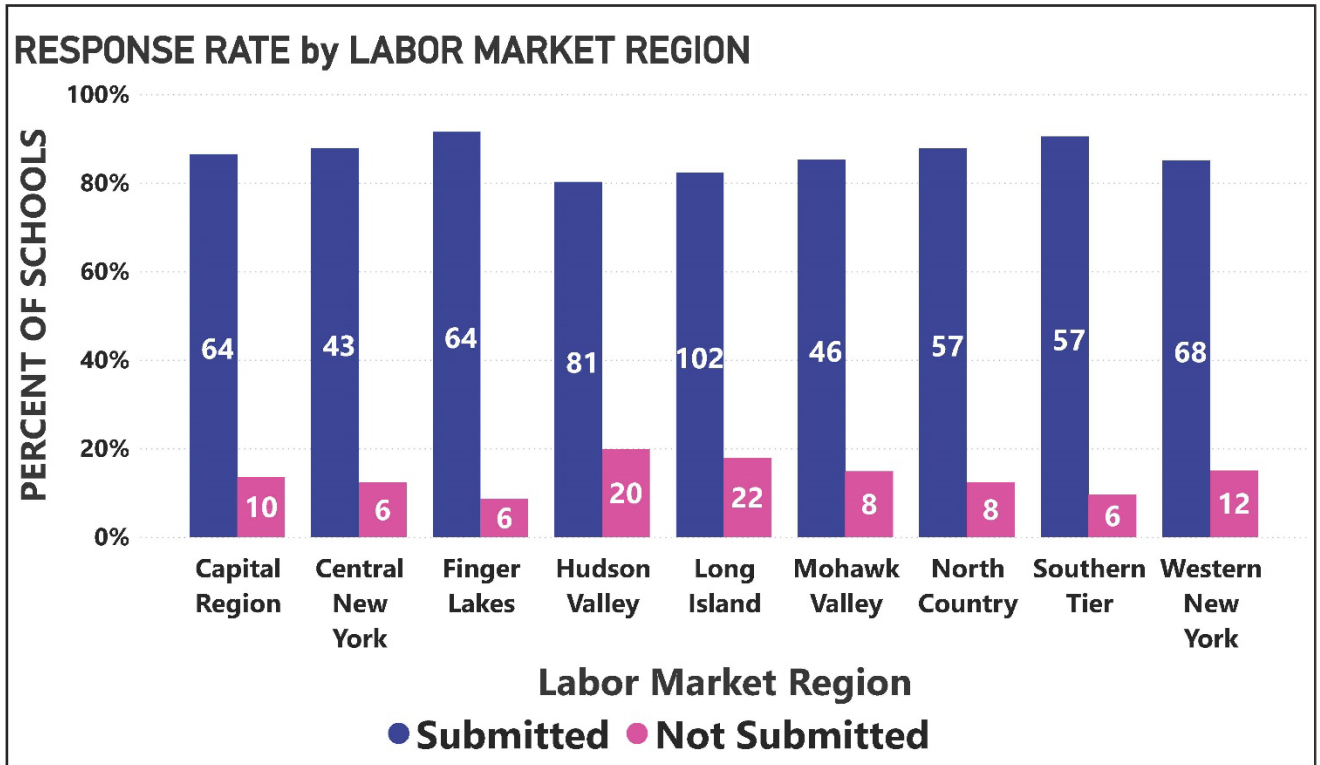
Statewide Reporting

Response Rate

NYSED surveyed six hundred eighty (681) non-Special Act school districts. Of these, five hundred eighty-two (582, 86%) responded to the survey, including the New York City School District. As indicated in the introductory portion of this report, New York City data is not included in Statewide reporting in this section.

As indicated in the graphs below, ninety-eight (98) school districts across the State did not submit responses to NYSED's transition assessment survey. As a result, the data used for reporting will include only school districts who provided responses to NYSED. For the purposes of this report, the charts and graphs included below provide analysis and observations pertaining only to responsive school districts. For subsequent reporting periods, NYSED will direct targeted outreach and support to districts that were non-responsive to this baseline survey to ensure that there is an accurate and complete capture in all districts across the state.





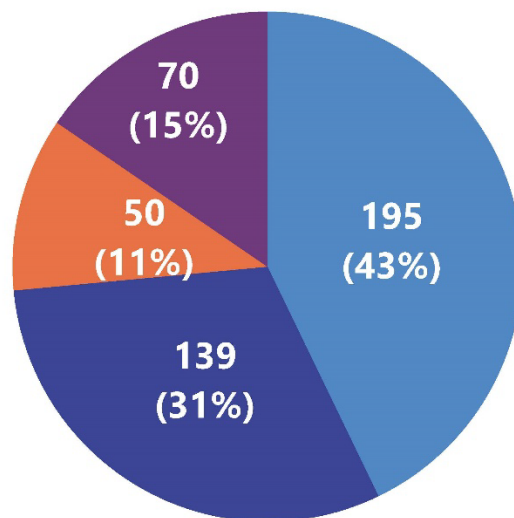
Transportation Means

A majority of responsive school districts (78% or 454 districts) indicated that they own and operate all or some of the transportation fleet used to serve the district. These districts are responsible for the initial and ongoing capital and operational investments necessary to build out new infrastructure and secure new vehicles to comply with the zero-emission mandate. It should be noted, however, that the two (2) Labor Market Regions that indicated the highest ratio of contracted service to own/operate together served 740,548 students in 2022-23, or fifty percent (50%) of all reported enrollment that year, excluding New York City. The same two Labor Market Regions also only encompass approximately 6,096.2 square miles, or about thirteen percent (13%) of the State. These data indicate that school districts in densely populated areas of the state are more likely to rely on contracted school bus services while less densely populated areas rely more heavily on their own bus fleets.

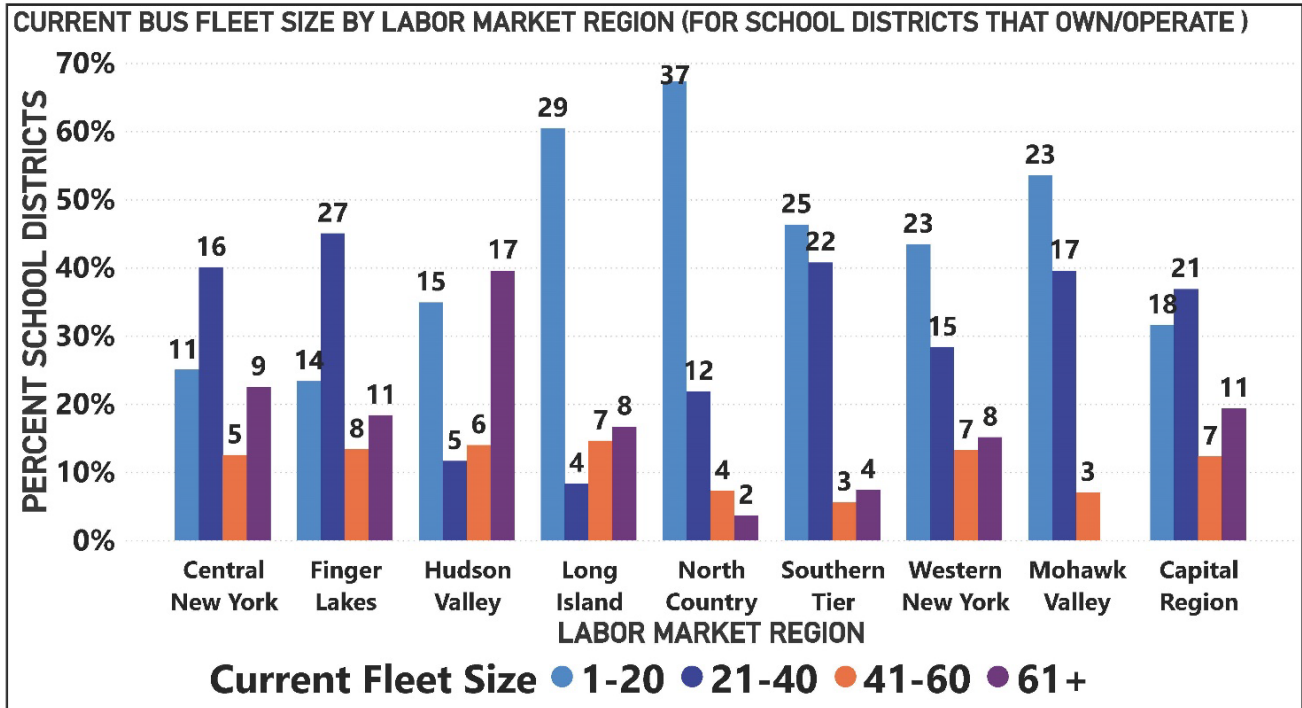
Bus Fleet Overview

Four hundred fifty-four (454) respondent school districts provided information on the fleets they own and operate. For reporting purposes, NYSED defines a small fleet as one contains up to twenty (20) vehicles, a medium fleet is twenty-one to forty (21-40) vehicles, a large fleet is forty-one to sixty (41-60) vehicles, and an extra-large fleet is more than sixty (60+) vehicles. A large majority of three hundred thirty-four districts (334, 74%) indicate that they own small or medium sized fleets to serve their transportation needs. Of the remaining one hundred twenty (120) districts, a greater number of districts maintain extra-large fleets than those that fall into the large range of 41-60 vehicles.

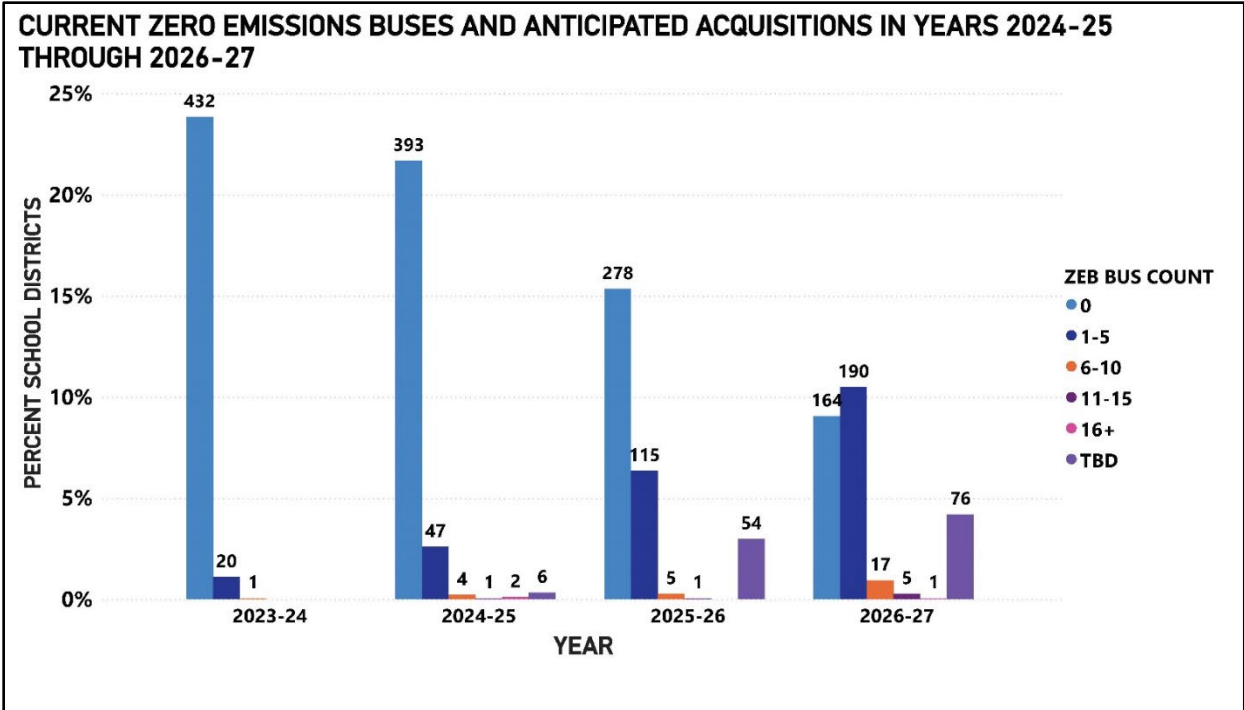
CURRENT BUS FLEET SIZE (FOR SCHOOL DISTRICTS THAT OWN/OPERATE)



Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+



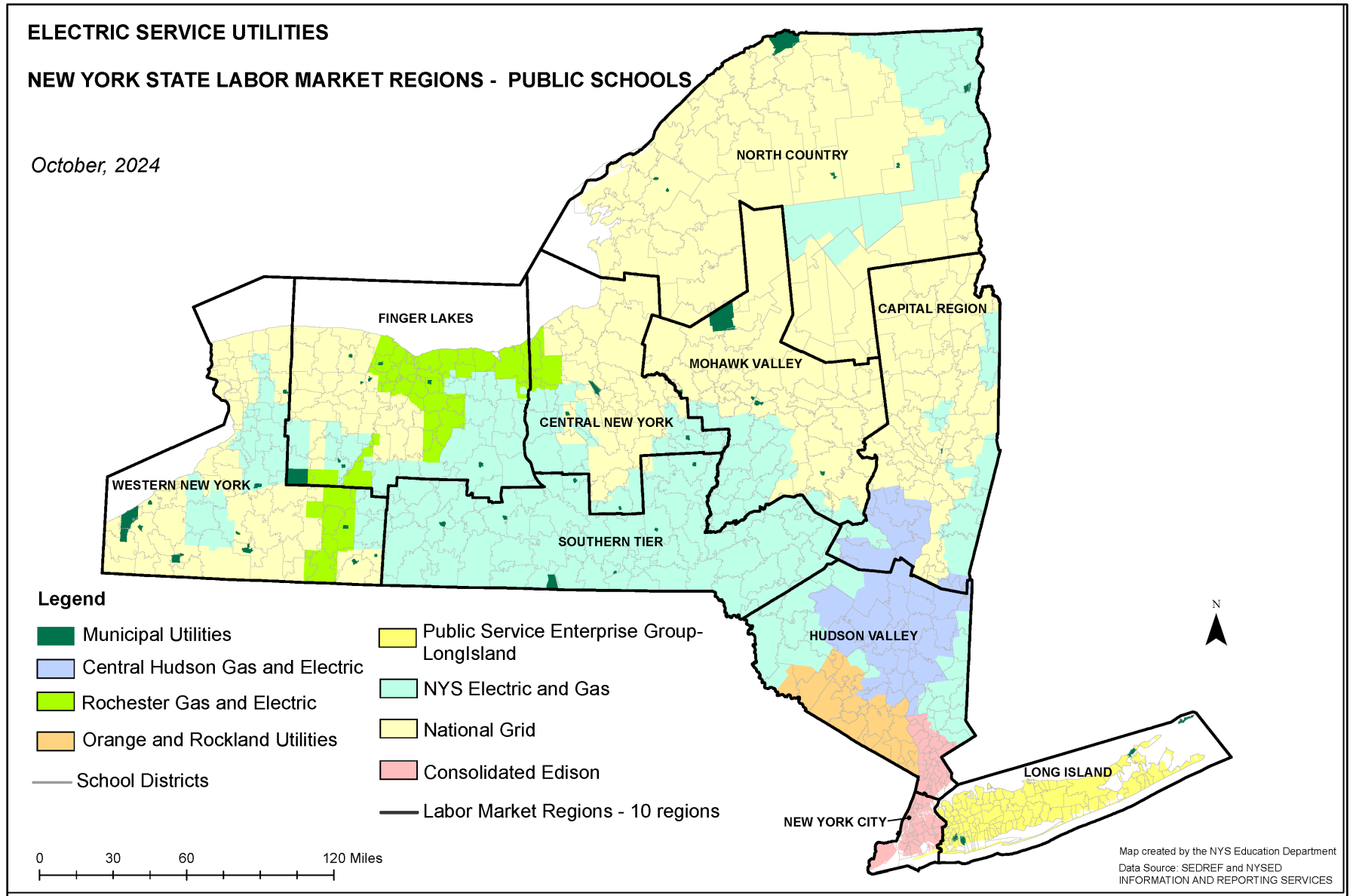
The number of zero-emission vehicles that are part of total bus fleets owned and operated by school districts is currently very small. Combining the count of vehicles owned by all four hundred fifty-three (453) responsive school districts across the state yields 14,474 school buses that are currently operational. Of these, only forty-one (41) are reported to be zero-emission vehicles. However, as indicated in the graph below, school districts anticipate that more zero-emission vehicles will be included in bus fleets as the statutory transition period approaches.



These data do not include counts of electric buses currently owned and operated by third-party vendors contracted by school districts to provide transportation services. Similar to school districts, contractors currently operate relatively small numbers of electric buses. Data provided by the NYSBCA show only the following five (5) members currently operate zero-emission vehicles:

Contractor Name	Total Fleet Size Range	Zero-Emission Buses Currently Active
Consolidated Bus Transit	1,001 – 1,500	5
Logan Bus & Affiliates	1,501 – 3,000	11
Pioneer Transportation	501 – 750	5
STA/Mid-City Transit	4,001 +	16
Suffolk Transportation	1,501 – 3,000	11

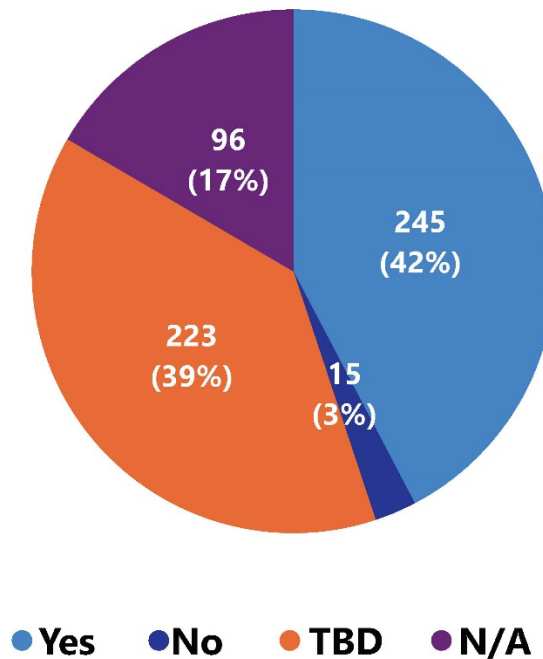
Infrastructure Overview



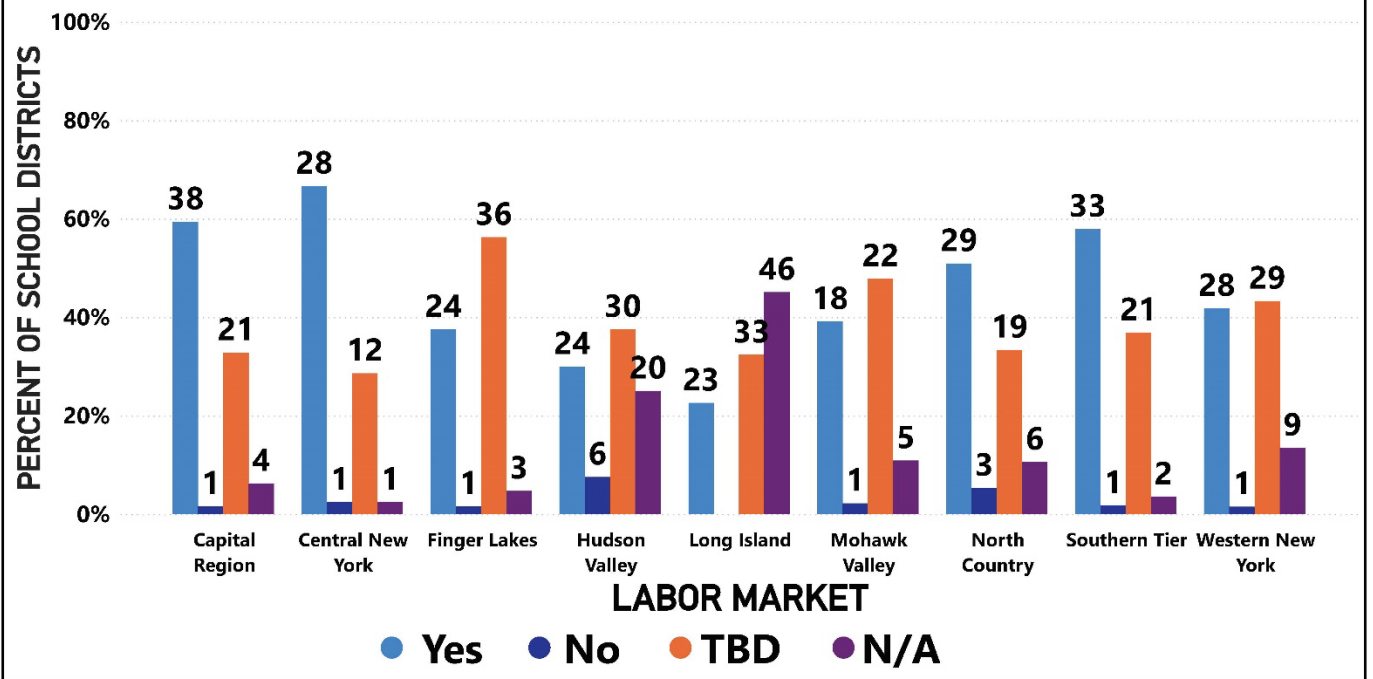
Utility Assessment

In addition to vehicles, school districts must also invest in capital upgrades to electric service and install vehicle charging stations to support transportation needs. The map above provides information on utility provider territories across New York State. The graphs below indicates that across the state, at least two hundred forty-five (245) school districts (about 42%) report that they will need some electric service update or upgrade to meet their bus charging needs. A response of “n/a” (not applicable) indicates that no assessment has been made or the responding district contracts for all transportation and does not intend to perform any capital improvements to support electrification at the district. Such definition is applicable throughout this document.

DO SCHOOL DISTRICTS ANTICIPATE ELECTRICAL UPDATES ARE NEEDED?

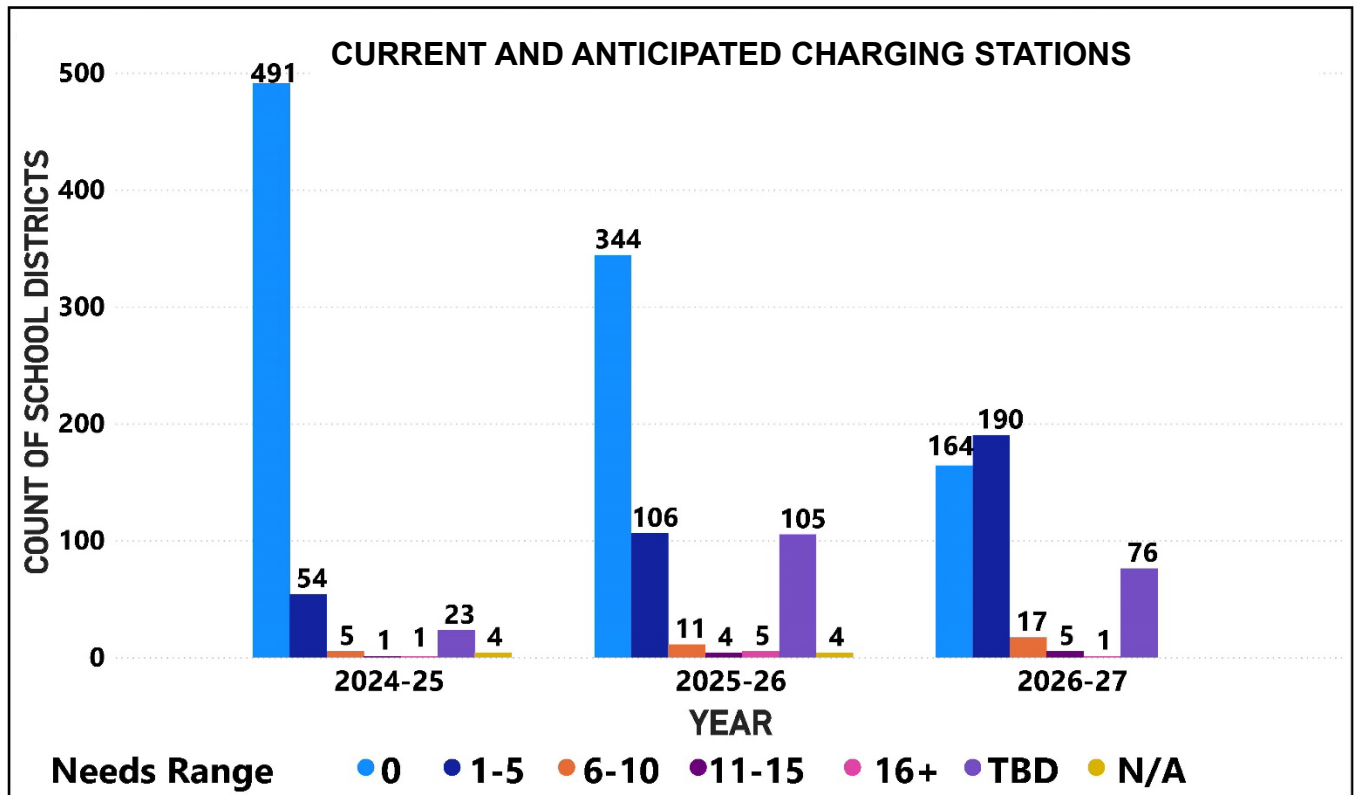


DO SCHOOL DISTRICTS ANTICIPATE ELECTRICAL UPDATES ARE NEEDED? (BY LABOR MARKET REGION)



It should be noted that PSEG-LI, the members of the Joint Utilities of New York, and NYSEERDA administer programs designed to assist districts with assessing their needs to support bus electrification. NYSEERDA provides school districts with a Fleet Electrification Plan (“FEP”) that is designed to provide a comprehensive individual blueprint to participating districts, including an assessment of the current status and recommendations on needs over time. A similar Fleet Assessment (“FAS”) may be provided by a district’s utility provider, focused specifically on the electric supply upgrades that may be needed at the district. Granular data regarding which districts have commissioned such studies and their status is provided in the District Overview for each of the ten (10) New York State Labor Market Regions later in this report. While many school districts report that electrical updates are needed to support an electric bus fleet (245, 42%), nearly the same number are waiting on a formal assessment to conclude (223, 39%). Overall, of all six hundred seventy-six (676) districts surveyed, data provided by NYSEERDA and the JU show that three hundred five (305) districts are engaging NYSEERDA for an FEP (about 45%), and two hundred thirty-six (236, about 35%) have engaged with their utility for an assessment.

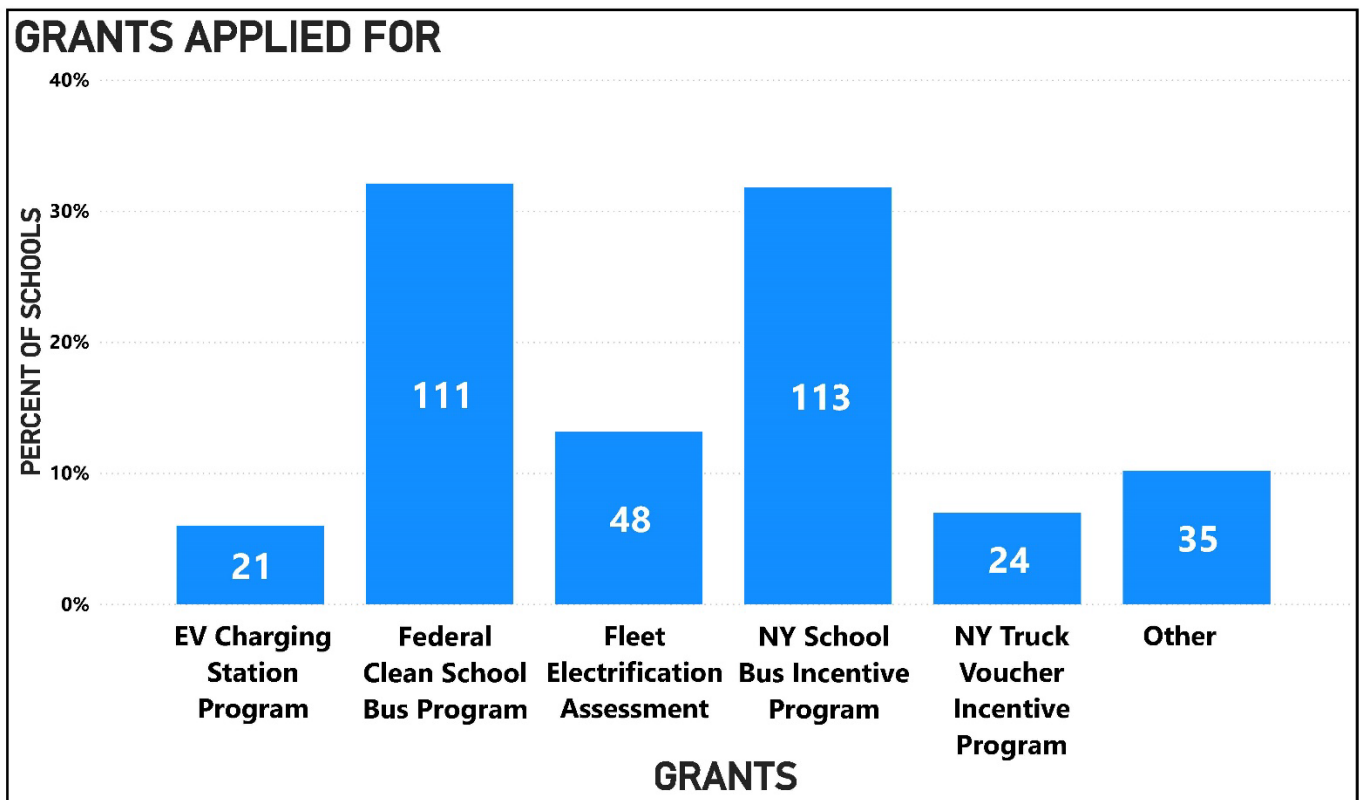
Still, while the vast majority of school districts will not have charging infrastructure available for use in the 2024-25 school year, there are several school districts with electric buses currently operating that have charging infrastructure installed at this time. Additionally, as with school districts' acquiring of vehicles, it is expected that more charging stations will become available for use over time. Please find this data in the graph below:

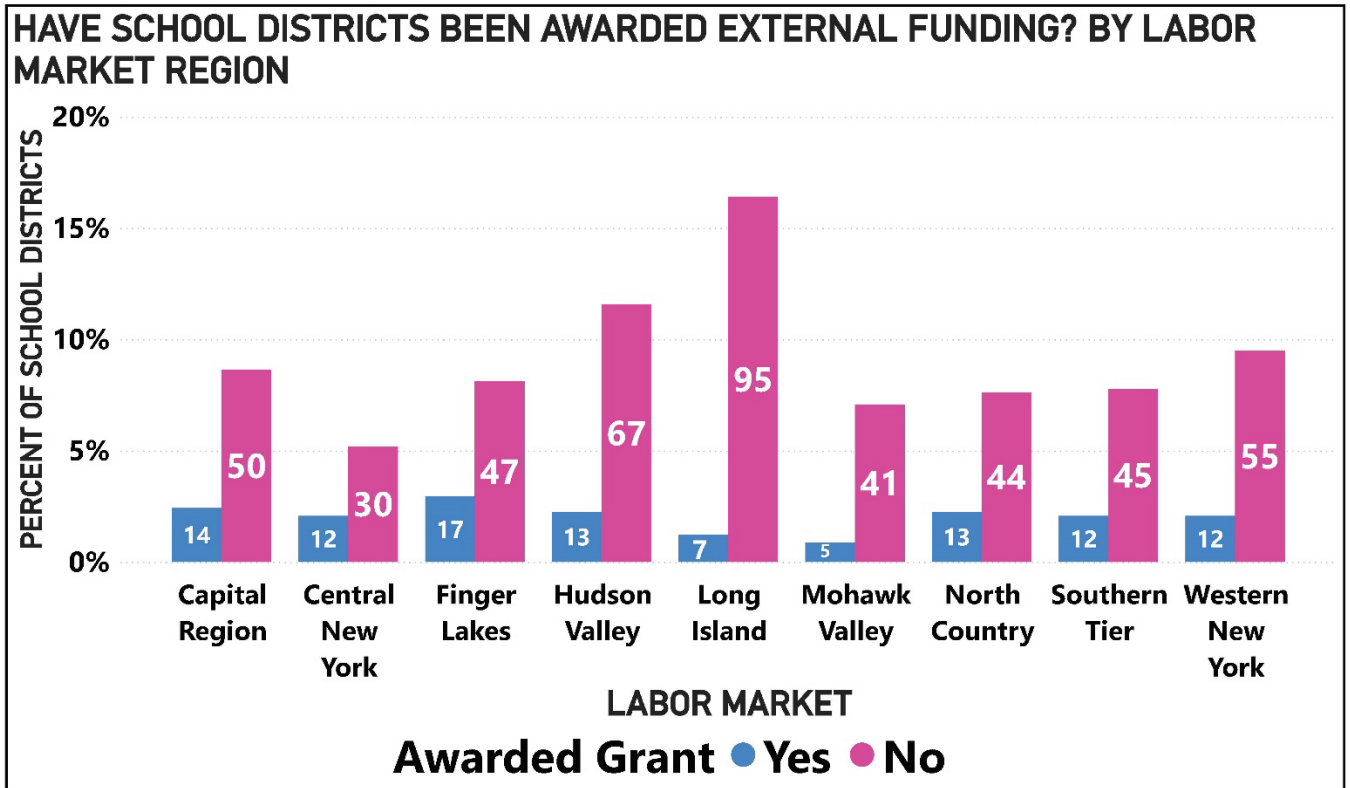


Funding the Transition

In its “Electric School Bus Roadmap,” NYSERDA projects that the overall cost to own and operate electric buses is less expensive than internal combustion equivalents and could save operators from a few thousand dollars to more than \$10,000 per bus, per year. Those cost savings are primarily based on total cost to own, which includes lower maintenance and repair costs due to fewer parts and components in an electric motor compared to an internal combustion engine. However, the initial investment currently needed for vehicles and the infrastructure to support them is substantially greater than the cost of replacing a fossil-fuel vehicle. To help defray the relatively high upfront costs

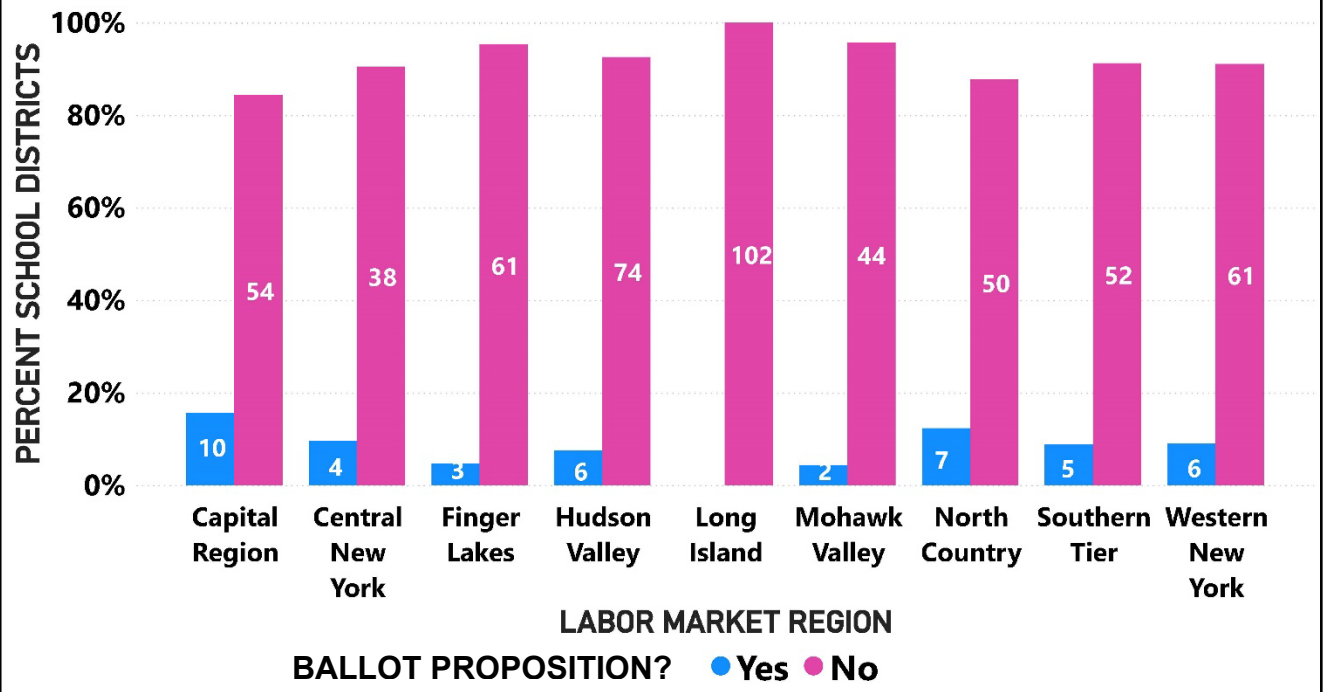
associated with transitioning to zero emission busing, External funding opportunities, such as Federal EPA grants and reimbursement programs, and the NYSERDA-administered New York School Bus Incentive Program, are available to help school districts mitigate the financial burden related to bus electrification. The following graphs show how many districts reported having applied for such funding, and a breakdown by Labor Market Region of what programs have been applied for, and the relative count of school districts that report having been awarded funding:



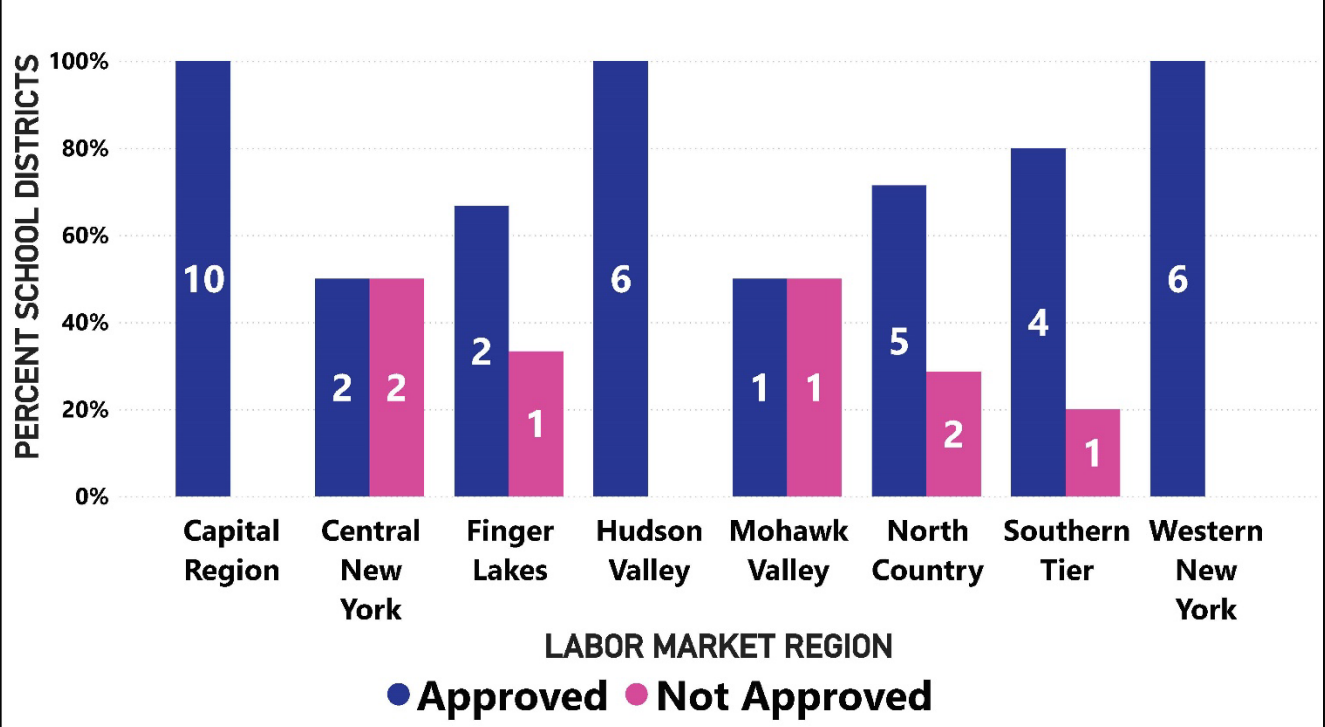


The external funding programs currently available to school districts that can be leveraged to support New York State’s zero emission bus transition come with a set of challenges. For instance, some of the federal funding available to school districts come in the form of a reimbursement, as opposed to an upfront grant or point of sale discount. Additionally, many of the utility make-ready programs will cover a substantial portion of utility-side upgrade costs, but they also are predominantly refund programs where a school district must cover all costs upfront. As a result, school districts will likely need to incur debt to transition bus fleets and upgrade infrastructure and facilities. Taking on debt requires voter approval. The following graphs indicate the number of school districts that reported placing a zero-emission busing related proposition on the ballot at a recent school district election or referendum, and the outcomes of those propositions that were put out to local voters.

HAVE SCHOOL DISTRICTS PUT A ZERO EMISSIONS BUS PROPOSITION OUT FOR VOTE? (BY LABOR MARKET REGION)



VOTER RESULTS OF PROPOSITION (BY LABOR MARKET REGION)



Of five hundred eighty-three (583) school districts responding to the survey, only forty-three (43, 7.4%) have held a public referendum on the matter of zero-emission busing. However, of those that were held, thirty-six (36, 83.7%) did pass. As reported in the NYSED survey, school districts report that they are hesitant to put a proposition before the voters due to perceived lack of support, either for the issue or for the added tax burden associated with it. Without voter authorization to incur debt needed to fund the transition, however, school districts are forced to continue planning without a firm timeline for plan execution. Finally, while there are many different programs and opportunities for school districts to secure grants and other external funds to support expenses related to zero-emission busing, funds are somewhat limited. Programs are designed to rightfully prioritize and incentivize school districts serving economically disadvantaged communities with relatively larger awards. Such school districts also have a more favorable State Transportation Aid Ratio, allowing a greater percentage of allowable transportation expenses to be returned to these districts in the form of Aid that is paid over a fixed amortization period. Due to this, wealthier, non-prioritized school districts with lower State Transportation Aid Ratios are then forced to shift more of the financial burden onto the local school district taxpayers directly.

Workforce Development

The final topic assessed in the survey is to what extent a school district's workforce will be impacted by this transition. Statute requires that every school district or other student transportation service provider must:

- create and implement a workforce development report that estimates the number of current positions that would be eliminated, substantially changed, or created as a result of bus fleet electrification;
- identifies gaps in the skills of its current bus operations and maintenance workforce; and
- includes a comprehensive plan to transition, train, or retrain staff, including the cost thereof.

While nearly all school districts reported knowing and understanding that professional development and/or redevelopment will be needed, districts are still very much in the planning and research stages of their fleet and service transition.

Analysis of Statewide Reporting

School districts and other student transportation providers in New York State are actively responding to the call to transition to fully zero-emission busing by 2035. While only a small minority of school districts have been able to successfully implement and operationalize plans to deploy zero-emission buses on the road today, an overwhelming majority have started planning and developing actionable items in support of the statewide effort. NYSED will continue working closely with stakeholder groups such as NYSERDA, NYSDPS, various advocacy and professional organizations, and school districts to provide support for the zero-emission transportation transition. NYSED's survey instrument will be reviewed annually and updated, if necessary, in response to the changing zero-emission transportation landscape across New York State.

LABOR MARKET REGION ANALYSIS

Western New York Region

Regional Summary and Response Rate

The Western New York Labor Market Region contains five (5) counties—Allegany, Cattaraugus, Chautauqua, Erie, and Niagara. Together, there are eighty (80) traditional school districts covering an area of approximately 5,088.3 square miles that were responsible for educating 172,131 school-age children in the 2022-23 school year. NYSED received responses from sixty-eight (68) school districts, including Buffalo City School District (a “Big 5” district), bringing the overall response rate for the region to eighty-five percent (85%), with twelve (12) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

WESTERN NEW YORK LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
AKRON CSD	142101	1,283	78.4	Submitted	Complete	
ALDEN CSD	140101	1,565	57.4	Submitted	Applied	
ALFRED-ALMOND CSD	020101	551	95.4	Submitted	No Contact	
ALLEGANY - LIMESTONE CSD	040302	1,063	50.8	Submitted	Underway	
AMHERST CSD	140201	2,960	10.5	Submitted	Initial Contact Made	
ANDOVER CSD	020601	249	121.1	Submitted	Underway	
BARKER CSD	401301	643	73.5	Not Submitted	Applied	Complete
BELFAST CSD	020801	320	65.6	Submitted	Complete	In process
BEMUS POINT CSD	061001	602	59.2	Submitted	Underway	Complete
BOLIVAR-RICHBURG CSD	022902	704	98.9	Not Submitted	Complete	In process
BROCTON CSD	062301	505	58.3	Submitted	Complete	
BUFFALO CITY SD	140600	29,795	38.9	Submitted	Initial Contact Made	
CANASERAGA CSD	021102	200	77.7	Submitted	No Contact	
CASSADAGA VALLEY CSD	060401	803	141.3	Submitted	Underway	Complete
CATTARAUGUS-LITTLE VALLEY CSD	042302	840	181.7	Submitted	No Contact	In process
CHAUTAUQUA LAKE CSD	060503	719	109.2	Submitted	Underway	
CHEEKTOWAGA CSD	140701	2,249	10.0	Not Submitted	Applied	
CHEEKTOWAGA-MARYVALE UFSD	140702	2,193	5.4	Submitted	Applied	
CHEEKTOWAGA-SLOAN UFSD	140709	1,261	3.0	Submitted	Applied	Complete
CLARENCE CSD	140801	4,219	55.2	Submitted	Applied	

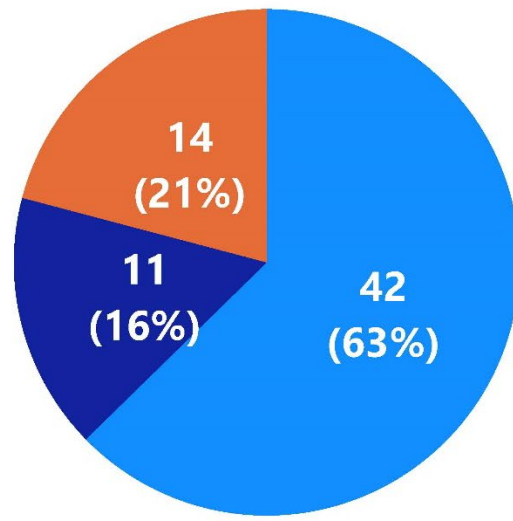
WESTERN NEW YORK LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
CLEVELAND HILL UFSD	140703	1,333	2.3	Submitted	Initial Contact Made	
CLYMER CSD	060701	360	77.9	Submitted	Underway	Complete
CUBA-RUSHFORD CSD	022302	739	157.0	Not Submitted	Underway	
DEPEW UFSD	140707	1,837	5.3	Not Submitted	Applied	
DUNKIRK CITY SD	060800	2,023	16.5	Submitted	Applied	Complete
EAST AURORA UFSD	140301	1,701	31.0	Not Submitted	No Contact	
EDEN CSD	141201	1,300	67.2	Submitted	Underway	Complete
ELLCOTTVILLE CSD	040901	554	114.8	Submitted	No Contact	
EVANS-BRANT CSD (LAKE SHORE)	141401	2,141	53.3	Submitted	Underway	Complete
FALCONER CSD	061101	1,131	70.6	Submitted	Applied	
FILLMORE CSD	022001	650	106.9	Submitted	Applied	
FORESTVILLE CSD	061503	437	77.6	Not Submitted	No Contact	
FRANKLINVILLE CSD	041101	601	125.7	Submitted	No Contact	Complete
FREDONIA CSD	062201	1,452	36.8	Not Submitted	No Contact	Complete
FREWSBURG CSD	060301	750	58.3	Submitted	No Contact	Complete
FRIENDSHIP CSD	021601	275	41.7	Submitted	Underway	
FRONTIER CSD	141604	4,622	24.2	Submitted	Applied	
GENESEE VALLEY CSD	020702	547	123.2	Submitted	No Contact	
GOWANDA CSD	042801	1,069	76.1	Submitted	Applied	
GRAND ISLAND CSD	141501	2,912	28.3	Submitted	Underway	Complete
HAMBURG CSD	141601	3,333	25.7	Not Submitted	No Contact	
HINSDALE CSD	041401	376	53.5	Submitted	No Contact	Complete
HOLLAND CSD	141701	772	73.3	Submitted	Underway	
IROQUOIS CSD	141301	2,055	79.6	Submitted	No Contact	
JAMESTOWN CITY SD	061700	4,617	18.4	Not Submitted	Complete	
KENMORE-TONAWANDA UFSD	142601	6,592	16.8	Submitted	Applied	Complete
LACKAWANNA CITY SD	141800	1,965	5.0	Not Submitted	Initial Contact Made	
LANCASTER CSD	141901	5,526	33.2	Submitted	Applied	
LEWISTON-PORTER CSD	400301	1,925	52.9	Submitted	No Contact	
LOCKPORT CITY SD	400400	4,274	31.3	Submitted	No Contact	
NEWFANE CSD	400601	1,286	38.1	Submitted	Applied	Complete
NIAGARA FALLS CITY SD	400800	6,835	17.2	Submitted	No Contact	Complete
NIAGARA-WHEATFIELD CSD	400701	3,258	50.4	Submitted	Applied	Complete
NORTH COLLINS CSD	142201	556	57.5	Submitted	Underway	
NORTH TONAWANDA CITY SD	400900	3,215	10.4	Submitted	Underway	
OLEAN CITY SD	042400	1,905	21.7	Submitted	Underway	Complete
ORCHARD PARK CSD	142301	4,832	48.9	Submitted	No Contact	
PANAMA CSD	061601	439	61.8	Submitted	Underway	Complete
PINE VALLEY CSD (SOUTH DAYTON)	060601	523	118.6	Submitted	Underway	

WESTERN NEW YORK LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
PORTVILLE CSD	042901	969	66.2	Submitted	Underway	Complete
RANDOLPH CSD	043001	853	261.8	Submitted	Applied	
RIPLEY CSD	062401	150	29.5	Submitted	No Contact	Complete
ROYALTON-HARTLAND CSD	401201	1,178	81.3	Submitted	Applied	Complete
SALAMANCA CITY SD	043200	1,310	67.0	Submitted	Applied	
SCIO CSD	022401	265	81.1	Submitted	Underway	Complete
SHERMAN CSD	062601	436	99.0	Not Submitted	Underway	Complete
SILVER CREEK CSD	061501	987	35.8	Submitted	Complete	
SOUTHWESTERN CSD AT JAMESTOWN	060201	1,338	46.7	Submitted	No Contact	
SPRINGVILLE-GRIFFITH INST CSD	141101	1,628	146.9	Submitted	No Contact	
STARPOINT CSD	401001	2,937	73.8	Submitted	No Contact	
SWEET HOME CSD	140207	3,588	12.3	Submitted	Complete	Complete
TONAWANDA CITY SD	142500	1,718	4.2	Submitted	Initial Contact Made	Complete
WELLSVILLE CSD	022601	1,129	107.4	Submitted	Underway	
WEST SENECA CSD	142801	6,162	20.7	Submitted	Underway	
WEST VALLEY CSD	040204	213	53.3	Submitted	No Contact	
WESTFIELD CSD	062901	637	41.9	Submitted	Complete	
WHITESVILLE CSD	022101	145	47.6	Submitted	No Contact	
WILLIAMSVILLE CSD	140203	9,848	36.5	Submitted	No Contact	
WILSON CSD	401501	998	65.3	Submitted	Applied	
YORKSHIRE-PIONEER CSD	043501	2,200	210.2	Submitted	No Contact	Complete

Transportation Means

Nearly all school districts in the region own and operate buses. Forty-two (42) districts, or about 63% of respondents, currently own and operate all school buses serving districts' needs; fourteen (14, 21%) districts indicate that all transportation services are contracted out, and eleven (11, 16%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.

TRANSPORTATION MEANS – Western New York Region



Means ● Own/Operate ● Mix ● Contract all

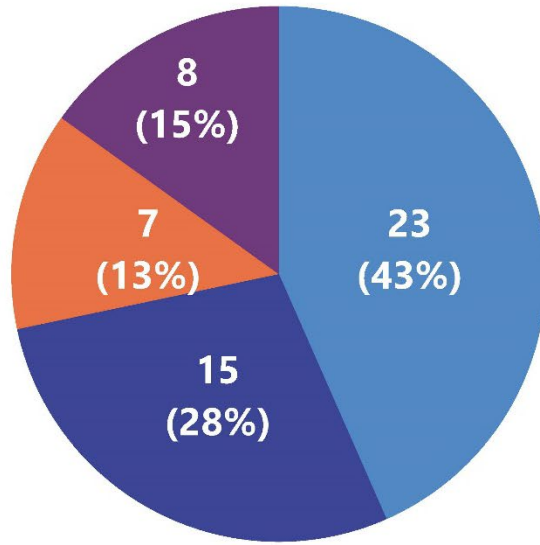
Bus Fleets

Fifty-three (53) school districts in the Western New York Region provided NYSED with information on their current bus fleet and anticipated future needs. Twenty-three (23) districts maintain between 1 and 20 buses; fifteen (15) districts own between 21 and 40 buses; seven (7) districts own between 41 and 60 buses; and eight (8) districts have fleets in excess of 60 vehicles. Of these reported fleets, fifty-one (51) school districts reported that no zero emission buses are currently owned. Two (2) districts, however, do currently maintain some zero emission buses:

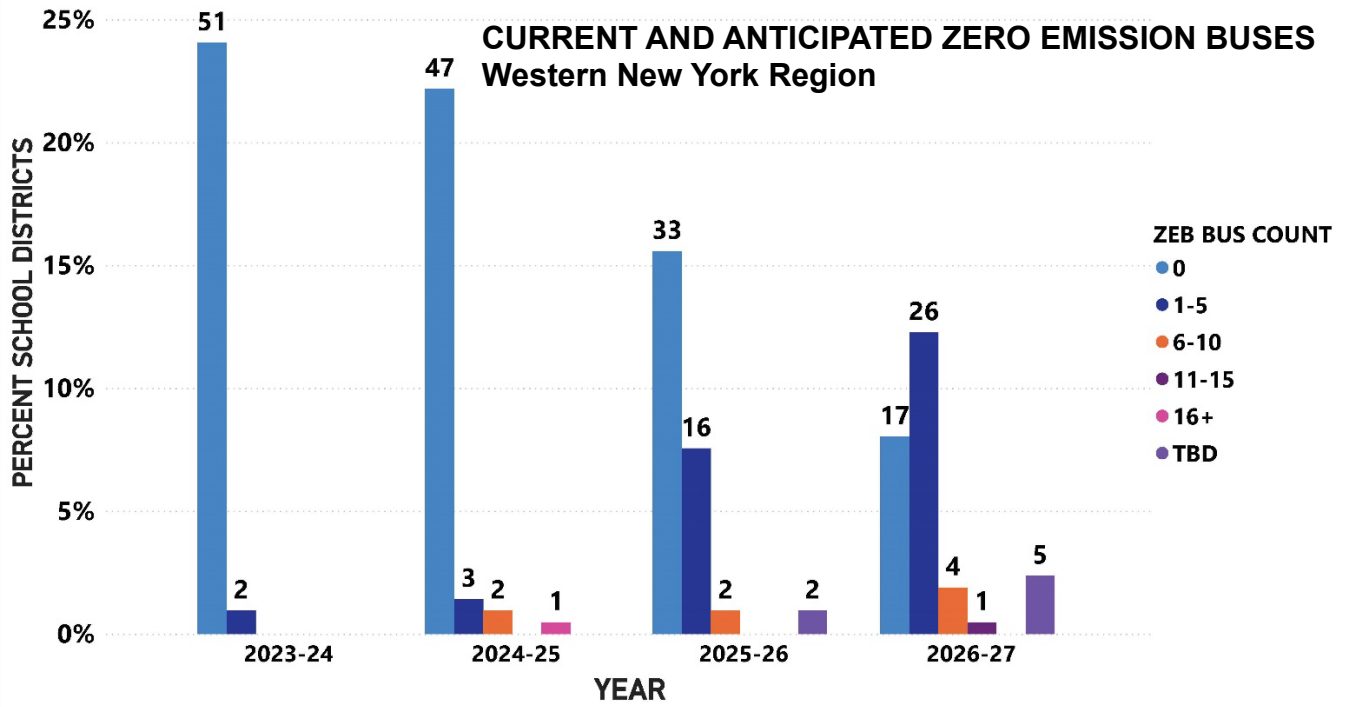
- Evans-Bryant (Lake Shore) reports owning two (2) in a fleet of forty-six (46) buses (about 4.4%)
- Frontier currently operates two (2) zero emission buses out of a fleet of eighty-five buses (85, 2.4%).

Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

CURRENT FLEET SIZE – Western New York Region



Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+

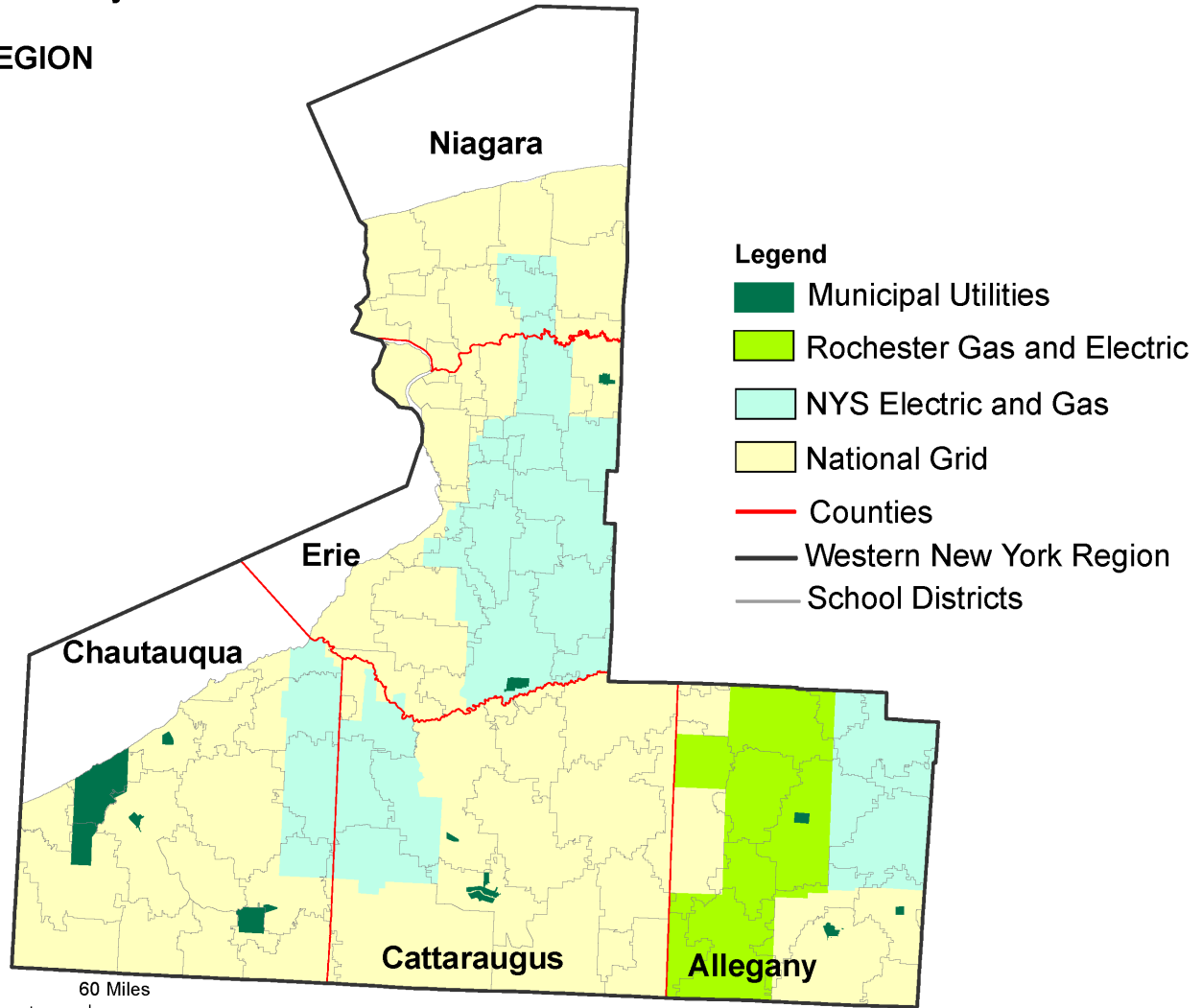


Infrastructure Assessment

ELECTRIC SERVICE UTILITIES by NEW YORK STATE LABOR MARKET REGIONS - PUBLIC SCHOOLS

WESTERN NEW YORK REGION

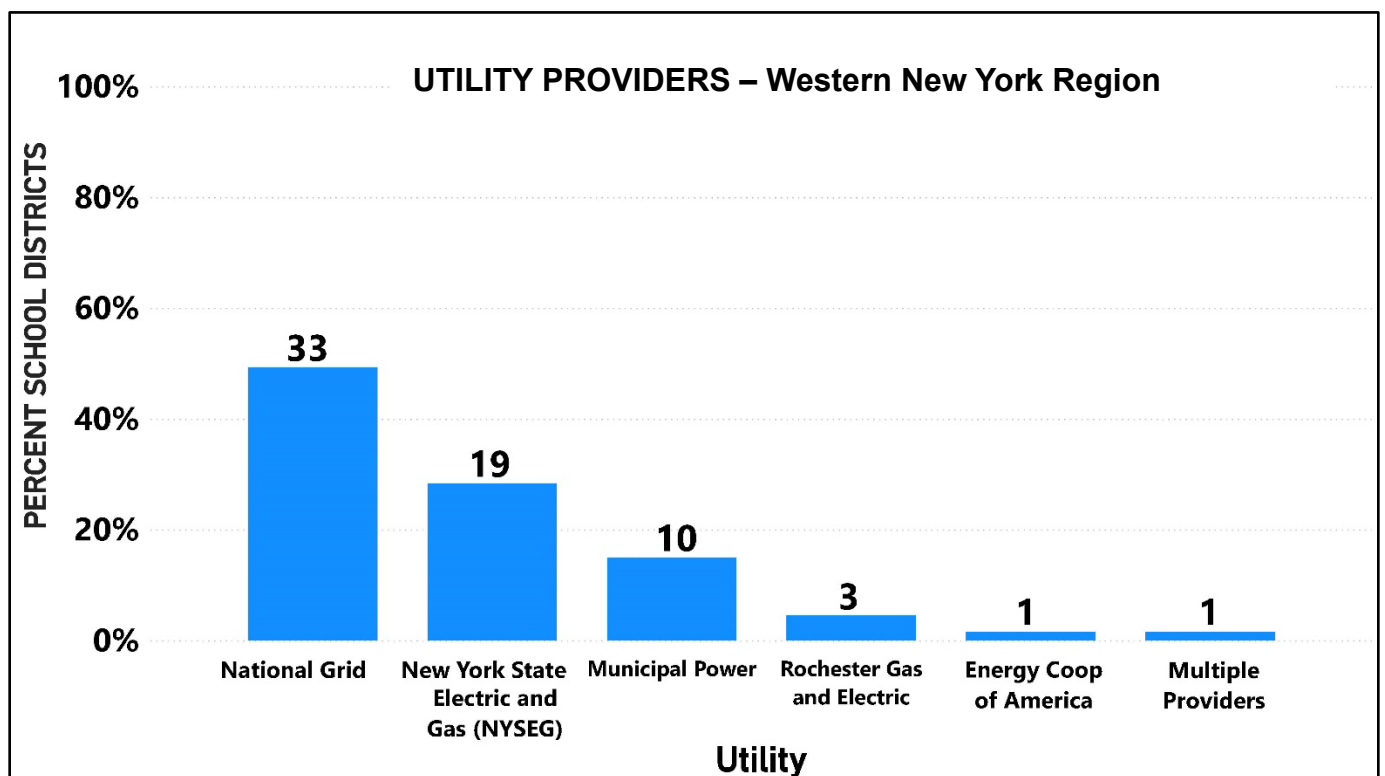
October, 2024



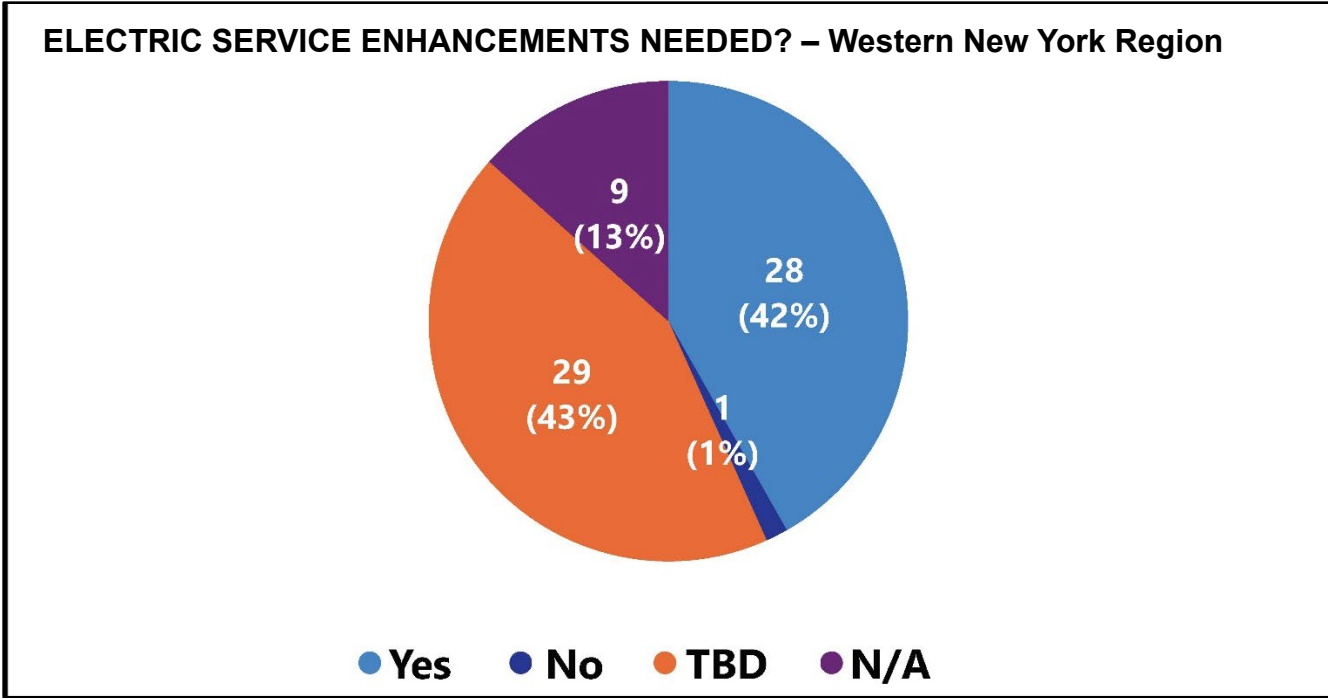
0 15 30 60 Miles
Map created by the NYS Education Department
Data Source: SEDREF and NYSED INFORMATION AND REPORTING SERVICES

Electric Service

School Districts in the Western New York Region primarily receive electricity from three (3) major utility companies—National Grid, NYSEG, and RG&E. However, as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, thirty-four (34) are served by National Grid, nineteen (19) receive electric service from NYSEG, three (3) are under RG&E, one (1) reports purchasing service from multiple providers, and eleven (11) districts reported receiving service from a municipal utility or other provider.

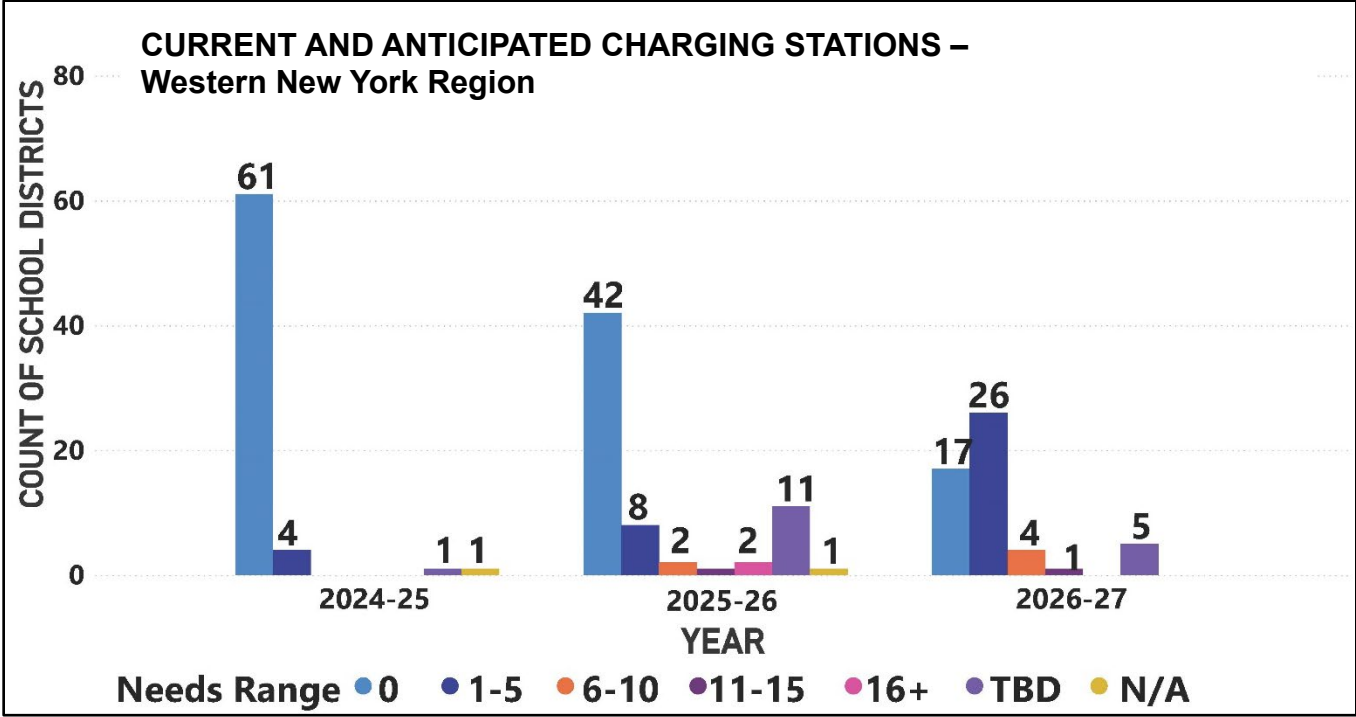


In general, districts in the Western New York Region report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, almost half of respondents—twenty-eight (28) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with twenty-nine (29) additional districts waiting for a determination to be made. Only one (1) district reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



Charging Stations and Infrastructure

Sixty-one (61) school districts in the region report that there are no charging stations available in district, currently. However, four (4) districts report that 1-5 chargers are installed already or are anticipated for 2024-25. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least thirty-one (31) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least five (5) districts anticipate the need for a new electrical transformer to be installed; and at least six (6) school districts anticipate that bus garages will need either extensive renovations or will have to be replaced completely.



Finger Lakes Region

Regional Summary and Response Rate

The Finger Lakes Labor Market Region contains nine (9) counties—Orleans, Monroe, Wayne, Genesee, Wyoming, Livingston, Ontario, Yates, and Seneca. Together, there are seventy (70) traditional school districts covering an area of approximately 4,464.5 square miles that were responsible for educating 152,497 school-age children in the 2022-23 school year. NYSED received responses from sixty-four (64) school districts, bringing the overall response rate for the region to ninety-one percent (91%), with six (6) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSEDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

FINGER LAKES LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSEDA FEP	UTILITY FAS
ALBION CSD	450101	1,745	129.3	Submitted	Applied	
ALEXANDER CSD	180202	736	79.2	Submitted	Underway	
ATTICA CSD	670201	1,142	148.3	Submitted	Underway	
AVON CSD	240101	939	50.1	Submitted	Underway	Complete
BATAVIA CITY SD	180300	2,165	25.7	Submitted	Underway	Complete
BRIGHTON CSD	260101	3,423	3.1	Submitted	No Contact	
BROCKPORT CSD	261801	3,116	69.6	Submitted	Applied	
BYRON-BERGEN CSD	180701	844	79.2	Submitted	Underway	Complete
CALEDONIA-MUMFORD CSD	240201	800	49.2	Submitted	Underway	Complete
CANANDAIGUA CITY SD	430300	3,312	88.0	Submitted	No Contact	
CHURCHVILLE-CHILI CSD	261501	3,779	53.5	Submitted	Applied	Complete
CLYDE-SAVANNAH CSD	650301	773	73.9	Submitted	Applied	
DALTON-NUNDA CSD (KESHEQUA)	241101	544	118.2	Submitted	Complete	
DANSVILLE CSD	241001	1,336	125.8	Submitted	Underway	
DUNDEE CSD	680801	654	91.8	Submitted	Applied	
EAST BLOOMFIELD CSD	430501	789	60.6	Submitted	Underway	
EAST IRONDEQUOIT CSD	260801	2,733	10.4	Submitted	No Contact	
EAST ROCHESTER UFSD	261313	973	3.0	Submitted	No Contact	
ELBA CSD	180901	400	41.1	Submitted	Underway	

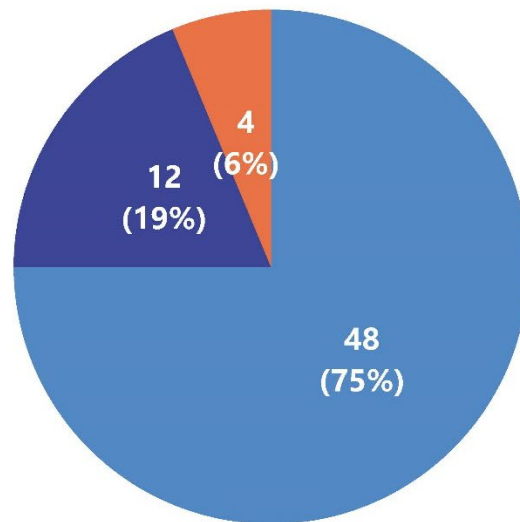
FINGER LAKES LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
FAIRPORT CSD	261301	5,373	24.8	Submitted	No Contact	
GANANDA CSD	650902	880	6.0	Submitted	Complete	
GATES-CHILI CSD	260401	3,707	21.0	Not Submitted	Underway	
GENESE0 CSD	240401	857	72.8	Submitted	Underway	
GENEVA CITY SD	430700	2,112	42.5	Not Submitted	No Contact	
GORHAM-MIDDLESEX CSD (MARCUS WHITMAN)	430901	1,101	143.8	Submitted	Applied	
GREECE CSD	260501	10,248	29.9	Submitted	Underway	
HILTON CSD	261101	4,214	67.1	Submitted	No Contact	
HOLLEY CSD	450704	968	53.0	Submitted	Applied	
HONEOYE CSD	431401	556	86.1	Submitted	No Contact	Complete
HONEOYE FALLS-LIMA CSD	260901	2,060	74.6	Submitted	No Contact	Complete
KENDALL CSD	450607	685	57.1	Submitted	Underway	Complete
LE ROY CSD	181001	1,149	45.1	Submitted	Underway	
LETCHEWORTH CSD	670401	914	120.9	Submitted	Underway	
LIVONIA CSD	240801	1,436	82.8	Submitted	Underway	Complete
LYNDONVILLE CSD	451001	593	65.6	Not Submitted	No Contact	
LYONS CSD	650501	875	48.1	Submitted	Applied	
MANCHESTER-SHORTSVILLE CSD (RED JACKET)	431101	709	28.4	Submitted	Underway	
MARION CSD	650701	648	32.6	Submitted	No Contact	
MEDINA CSD	450801	1,396	81.4	Submitted	Underway	Complete
MT MORRIS CSD	240901	539	37.8	Submitted	Underway	
NAPLES CSD	431201	602	107.1	Not Submitted	Underway	
NEWARK CSD	650101	1,938	21.5	Submitted	No Contact	
NORTH ROSE-WOLCOTT CSD	651501	1,127	123.9	Submitted	Underway	
OAKFIELD-ALABAMA CSD	181101	735	71.2	Submitted	Underway	
PALMYRA-MACEDON CSD	650901	1,771	52.9	Submitted	Underway	
PAVILION CSD	181201	631	72.6	Submitted	Underway	
PEMBROKE CSD	181302	910	69.1	Submitted	Underway	
PENFIELD CSD	261201	4,732	28.8	Submitted	No Contact	
PENN YAN CSD	680601	1,308	165.7	Submitted	Underway	
PERRY CSD	671201	768	65.6	Submitted	Underway	
PHELPS-CLIFTON SPRINGS CSD	431301	1,553	86.0	Submitted	Applied	
PITTSFORD CSD	261401	5,503	30.4	Submitted	Underway	
RED CREEK CSD	651503	804	60.4	Submitted	Applied	
ROCHESTER CITY SD	261600	23,478	42	Not Submitted	Underway	Complete

FINGER LAKES LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
ROMULUS CSD	560603	445	87.3	Submitted	Underway	
RUSH-HENRIETTA CSD	261701	5,660	60.8	Submitted	No Contact	
SENECA FALLS CSD	560701	1,237	56.4	Submitted	Underway	
SODUS CSD	651201	1,043	64.0	Submitted	Applied	
SOUTH SENECA CSD	560501	636	151.2	Submitted	No Contact	
SPENCERPORT CSD	261001	3,573	37.1	Submitted	Initial Contact Made	
VICTOR CSD	431701	4,305	43.3	Not Submitted	No Contact	
WARSAW CSD	671501	806	72.6	Submitted	Underway	
WATERLOO CSD	561006	1,433	83.1	Submitted	Underway	In process
WAYNE CSD	650801	2,131	64.9	Submitted	No Contact	
WEBSTER CSD	261901	8,051	51.2	Submitted	Underway	
WEST IRONDEQUOIT CSD	260803	3,596	6.9	Submitted	No Contact	
WHEATLAND-CHILI CSD	262001	679	23.2	Submitted	Underway	
WILLIAMSON CSD	651402	995	31.3	Submitted	Underway	
WYOMING CSD	671002	142	45.0	Submitted	Underway	
YORK CSD	241701	682	67.7	Submitted	Underway	Complete

Transportation Means

Nearly all school districts in the Finger Lakes Region own and operate buses. Forty-eight (48) districts, or 75% of respondents, currently own and operate all school buses serving districts’ needs; four (4, 6%) districts indicate that all transportation services are contracted out, and twelve (12, 19%) indicate a mix of both. This is consistent with the NYSED’s observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.

TRANSPORTATION MEANS – Finger Lakes Region



Means ● Own/Operate ● Mix ● Contract all

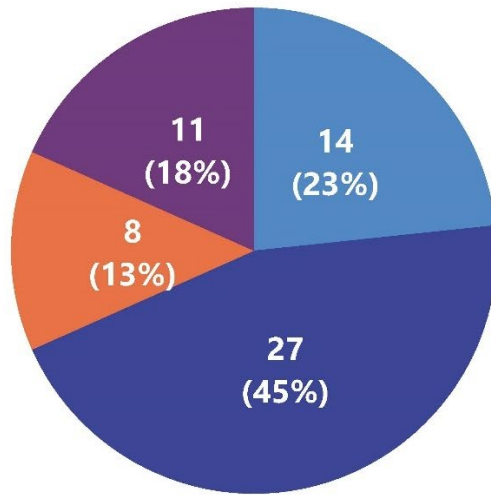
Bus Fleets

Sixty (60) school districts in the Finger Lakes Region provided NYSED with information on their current bus fleet and anticipated future needs. Fourteen (14) districts maintain between 1 and 20 buses; twenty-seven (27) districts own between 21 and 40 buses; eight (8) districts own between 41 and 60 buses; and eleven (11) districts have fleets in excess of 60 vehicles. Of these reported fleets, fifty-seven (57) school districts reported that no zero emission buses are currently owned. Three (3) districts, however, do currently maintain some zero emission buses:

- Livonia currently operates one (1) zero emission bus out of a fleet of thirty-four buses (34, 2.9%)
- Penfield currently operates two (2) zero emission buses out of a fleet of eighty buses (80, 2.5%)
- York currently operates one (1) zero emission bus out of a fleet of eighteen buses (18, 5.6%).

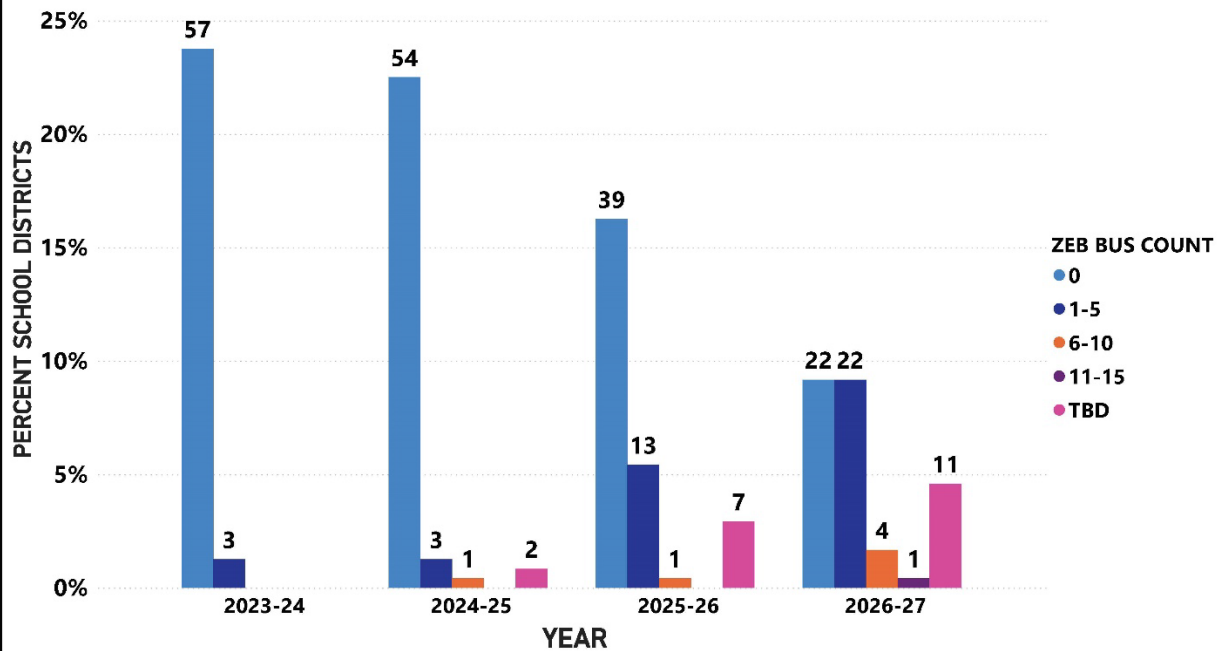
Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

CURRENT FLEET SIZE – Finger Lakes Region



Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+

CURRENT AND ANTICIPATED ZERO EMISSION BUSES – Finger Lakes Region







Infrastructure Assessment

ELECTRIC SERVICE UTILITIES by NEW YORK STATE LABOR MARKET REGIONS - PUBLIC SCHOOLS FINGER LAKES REGION

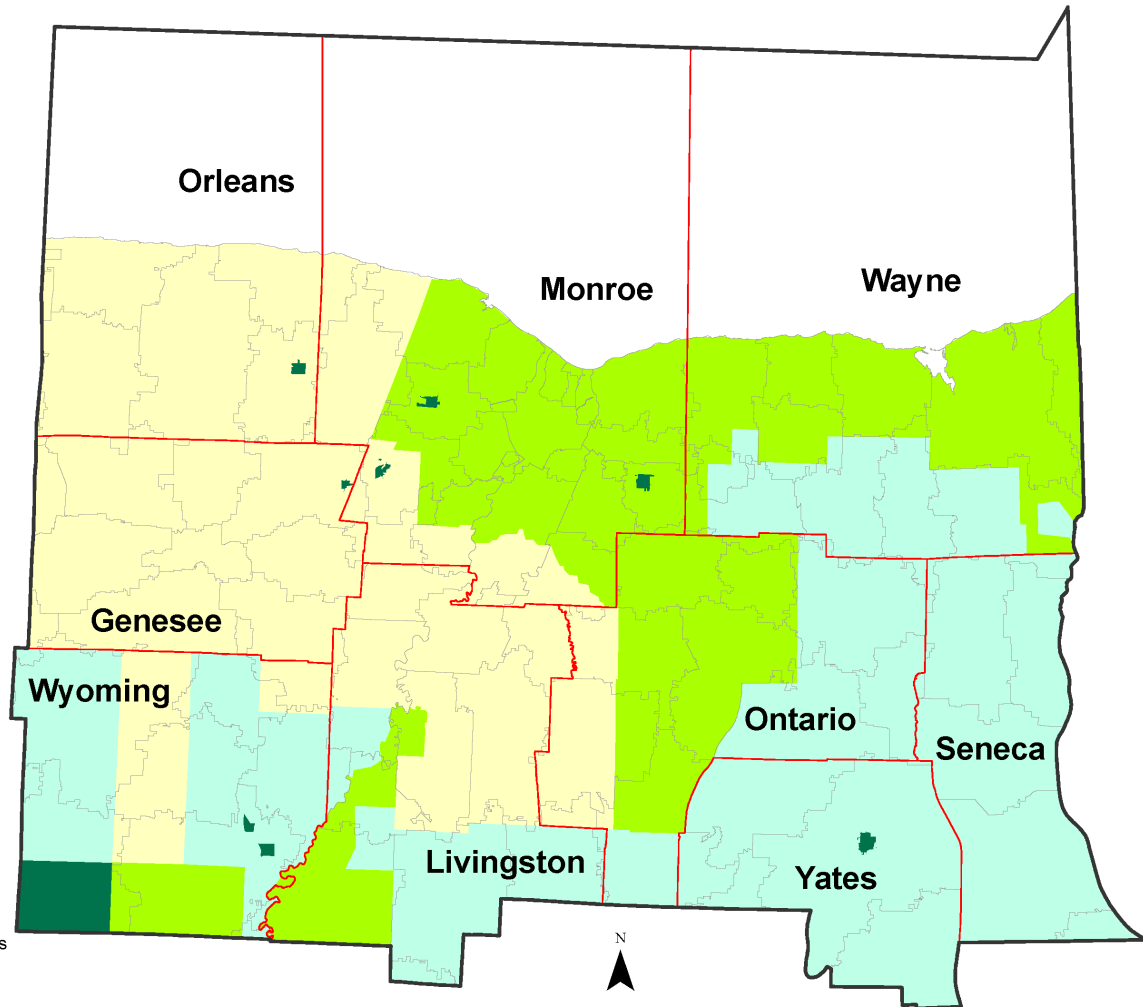
October, 2024

Legend

-  Municipal Utilities
-  Rochester Gas and Electric
-  NYS Electric and Gas
-  National Grid
- Counties
- Finger Lakes Region
- School Districts

0 15 30 60 Miles

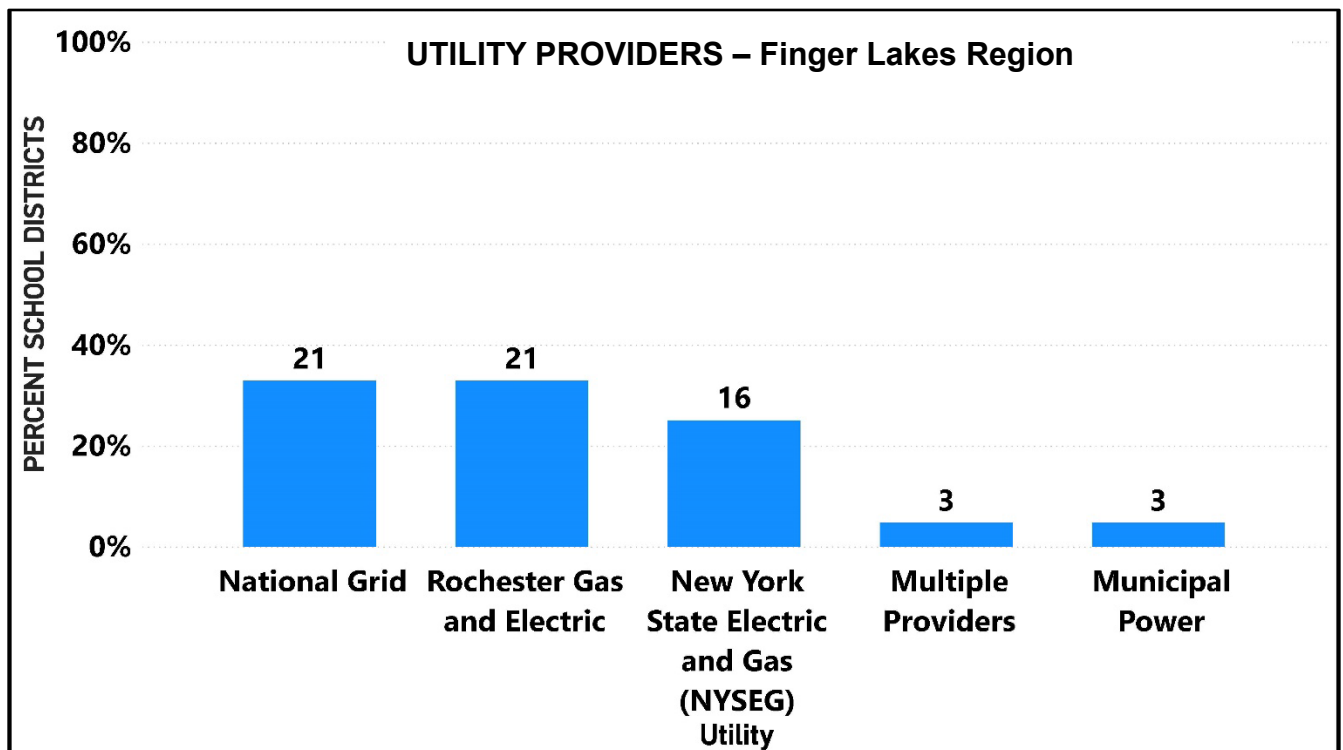
Map created by the NYS Education Department
Data Source: SEDREF and NYS ED INFORMATION AND REPORTING SERVICES



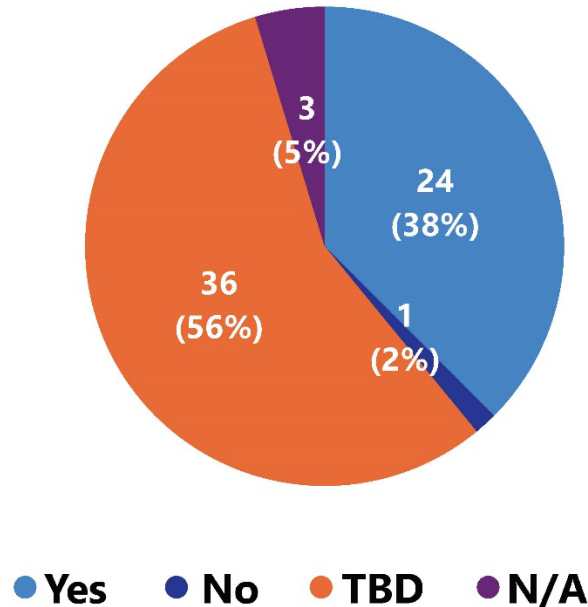
Electric Service

School Districts in the Finger Lakes Region primarily receive electricity from three (3) major utility companies—National Grid, NYSEG, and RG&E. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, twenty-one (21) are served by National Grid, sixteen (16) receive electric service from NYSEG, twenty-one (21) are under RG&E, three (3) report purchasing service from multiple providers, and three (3) districts reported receiving service from a municipal utility.

In general, districts in the Finger Lakes Region report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about one-third of respondents—twenty-four (24) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with thirty-six (36) additional districts waiting for a determination to be made. Only one (1) district reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



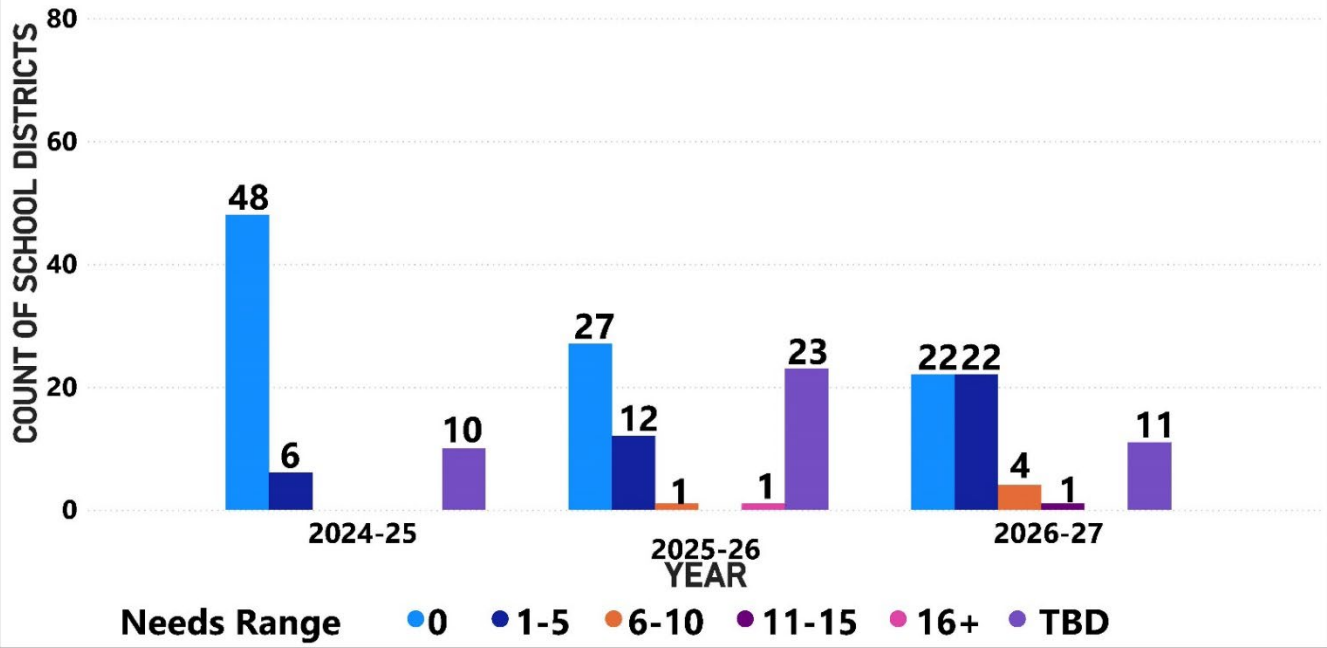
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Finger Lakes Region



Charging Stations and Infrastructure

Forty-eight (48) school districts in the region report that there are no charging stations available in district, currently. However, three (3) districts report that 1-5 chargers are installed already or are anticipated for 2024-25. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-four (24) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least three (3) districts anticipate the need for new bus garages, including one (1) school district—Penfield—currently building a new facility.

CURRENT AND ANTICIPATED CHARGING STATIONS
Finger Lakes Region



Central New York Region

Regional Summary and Response Rate

The Central New York Labor Market Region contains five (5) counties—Cayuga, Onondaga, Cortland, Oswego, and Madison. Together, there are forty-nine (49) traditional school districts covering an area of approximately 3,616.5 square miles that were responsible for educating 105,799 school-age children in the 2022-23 school year. NYSED received responses from forty-three (43) school districts, bringing the overall response rate for the region to eighty-eight percent (88%), with six (6) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

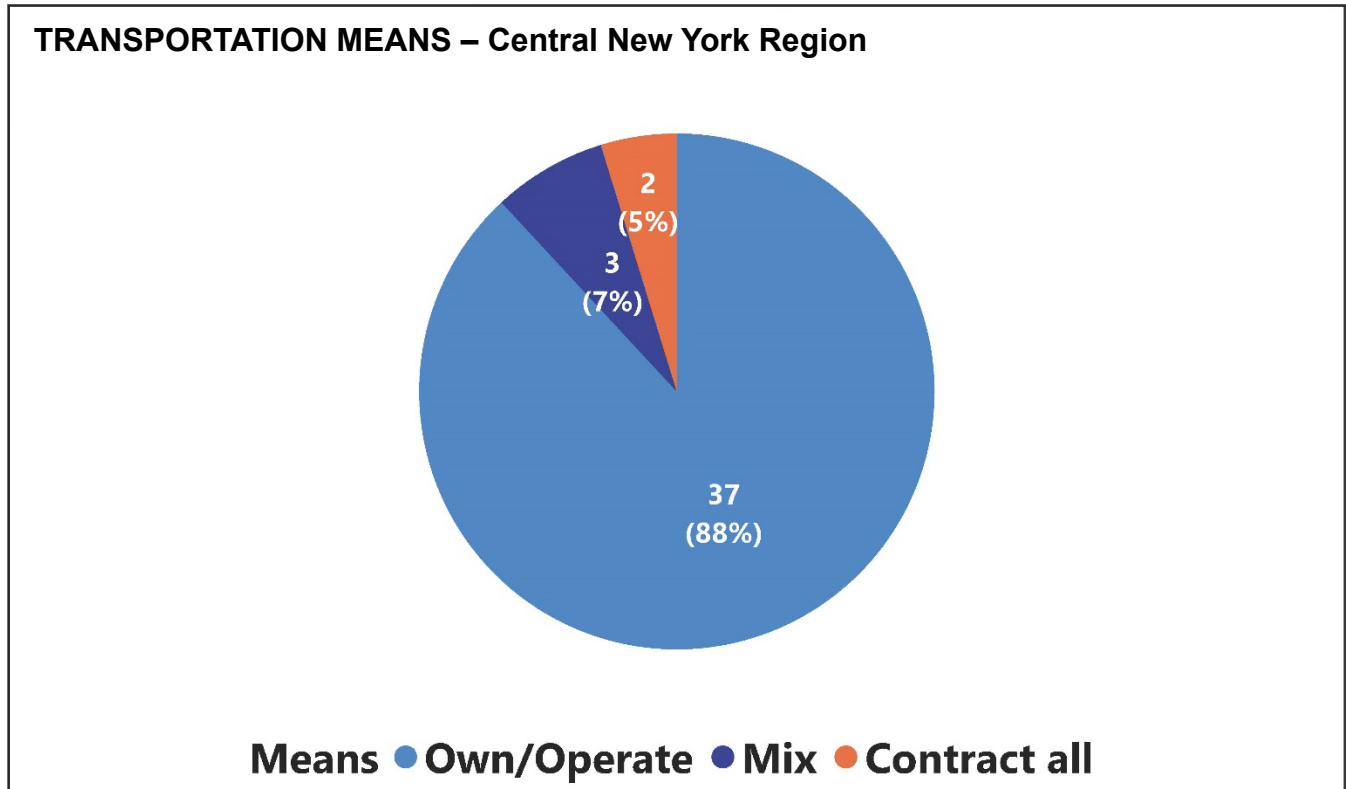
CENTRAL NEW YORK LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
ALTMAR-PARISH-WILLIAMSTOWN CSD	460102	1,066	168.0	Submitted	Applied	Complete
AUBURN CITY SD	050100	4,208	38.0	Submitted	Applied	
BALDWINVILLE CSD	420901	5,456	62.9	Submitted	No Contact	Complete
BROOKFIELD CSD	250109	206	66.9	Not Submitted	Underway	
CANASTOTA CSD	250901	1,255	56.4	Not Submitted	No Contact	Complete
CATO-MERIDIAN CSD	050401	867	95.8	Submitted	Underway	
CAZENOVIA CSD	250201	1,328	112.6	Submitted	No Contact	Complete
CENTRAL SQUARE CSD	460801	3,581	180.4	Submitted	No Contact	Complete
CHITTENANGO CSD	251601	1,910	66.1	Not Submitted	No Contact	Complete
CINCINNATUS CSD	110101	529	136.9	Submitted	Underway	
CORTLAND CITY SD	110200	1,953	45.8	Submitted	No Contact	Complete
DE RUYTER CSD	250301	323	92.5	Submitted	Underway	
EAST SYRACUSE-MINOA CSD	420401	3,422	48.5	Submitted	Underway	Complete
FABIUS-POMPEY CSD	420601	630	123.6	Submitted	No Contact	Complete
FAYETTEVILLE-MANLIUS CSD	421001	4,221	39.4	Submitted	No Contact	Complete
FULTON CITY SD	460500	3,264	68.0	Submitted	No Contact	Complete
HAMILTON CSD	250701	559	55.3	Submitted	No Contact	
HANNIBAL CSD	460701	1,199	67.4	Submitted	Underway	Complete
HOMER CSD	110701	1,859	175.7	Submitted	No Contact	Complete

CENTRAL NEW YORK LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
JAMESVILLE-DEWITT CSD	420411	2,533	21.7	Submitted	Initial Contact Made	Complete
JORDAN-ELBRIDGE CSD	420501	1,198	51.5	Submitted	No Contact	
LA FAYETTE CSD	420807	783	30.6	Submitted	No Contact	Complete
LIVERPOOL CSD	421501	6,889	20.9	Submitted	No Contact	Complete
LYNCOURT UFSD	421504	406	2.5	Submitted	No Contact	
MADISON CSD	251101	446	50.2	Submitted	No Contact	
MARATHON CSD	110901	721	102.0	Not Submitted	Underway	
MARCELLUS CSD	421101	1,407	56.5	Submitted	No Contact	
MCGRAW CSD	110304	514	57.2	Submitted	No Contact	
MEXICO CSD	460901	2,016	134.9	Submitted	Underway	Complete
MORAVIA CSD	051301	863	127.4	Submitted	No Contact	
MORRISVILLE-EATON CSD	250401	598	76.9	Submitted	No Contact	
NORTH SYRACUSE CSD	420303	8,134	58.1	Submitted	No Contact	Complete
ONEIDA CITY SD	251400	1,768	36.1	Submitted	No Contact	
ONONDAGA CSD	421201	776	35.2	Submitted	Initial Contact Made	Complete
OSWEGO CITY SD	461300	3,601	57.5	Submitted	No Contact	Complete
PHOENIX CSD	462001	1,674	74.6	Submitted	No Contact	Complete
PORT BYRON CSD	051101	765	73.4	Submitted	Complete	
PULASKI CSD	461801	943	64.7	Submitted	No Contact	Complete
SANDY CREEK CSD	461901	792	205.6	Submitted	Applied	Complete
SKANEATELES CSD	421601	1,254	75.6	Not Submitted	No Contact	
SOLVAY UFSD	420702	1,342	10.6	Submitted	No Contact	
SOUTHERN CAYUGA CSD	050701	658	160.8	Submitted	No Contact	
STOCKBRIDGE VALLEY CSD	251501	413	42.5	Submitted	No Contact	Complete
SYRACUSE CITY SD	421800	19,022	33.7	Submitted		
TULLY CSD	421902	743	79.9	Submitted	Underway	Complete
UNION SPRINGS CSD	051901	746	83.0	Not Submitted	No Contact	
WEEDSPORT CSD	050301	703	38.8	Submitted	No Contact	
WEST GENESEE CSD	420101	4,501	38.2	Submitted	Initial Contact Made	Complete
WESTHILL CSD	420701	1,754	16.1	Submitted	No Contact	Complete

Transportation Means

Nearly all school districts in the Central New York Region own and operate buses. Thirty-seven (37) districts, or 86% of respondents, currently own and operate all school buses serving districts' needs; two (2, 5%) districts indicate that all transportation services are contracted out, and four (4, 9%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated

areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.



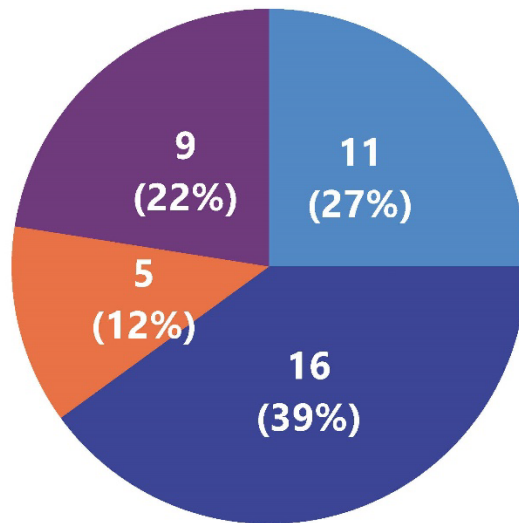
Bus Fleets

Forty-one (41) school districts in the Central New York Region provided NYSED with information on their current bus fleet and anticipated future needs. Eleven (11) districts maintain between 1 and 20 buses; sixteen (16) districts own between 21 and 40 buses; five (5) districts own between 41 and 60 buses; and nine (9) districts have fleets in excess of 60 vehicles. Of these reported fleets, forty (40) school districts reported that no zero emission buses are currently owned. One (1) district, however, does currently maintain one zero emission bus:

- Fabius-Pompey currently operates one (1) zero emission bus out of a fleet of twenty-three buses (23, 4.3%)

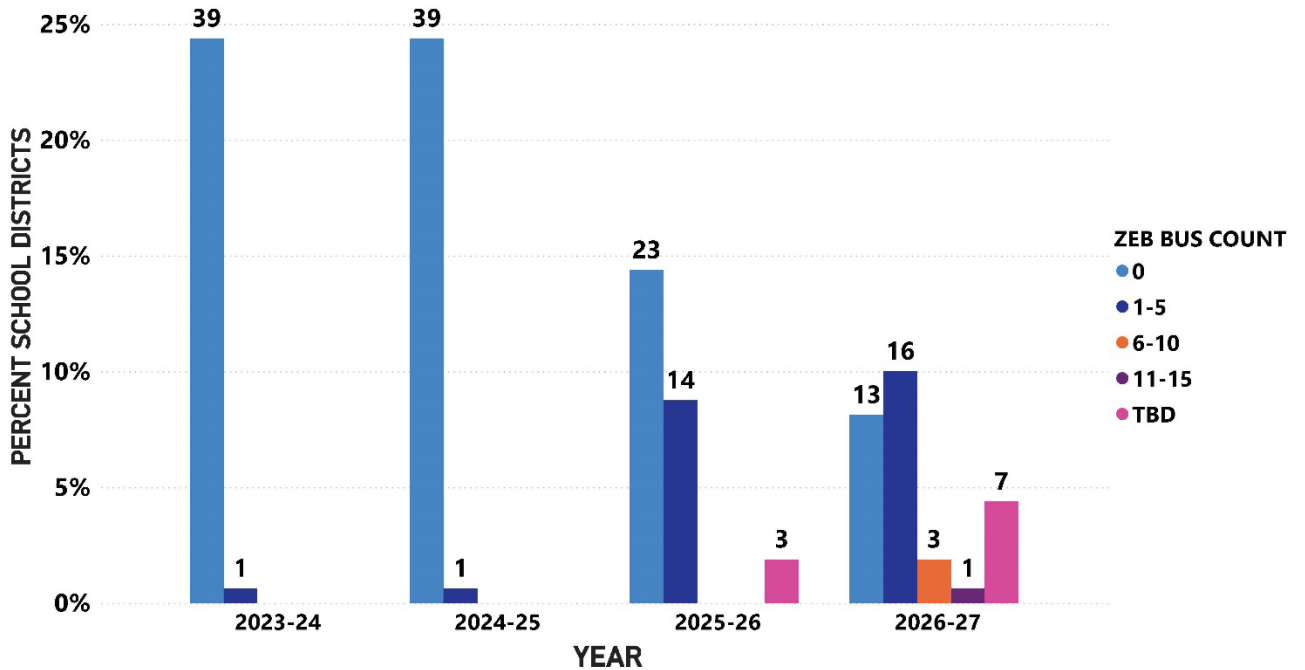
Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

CURRENT FLEET SIZE – Central New York Region

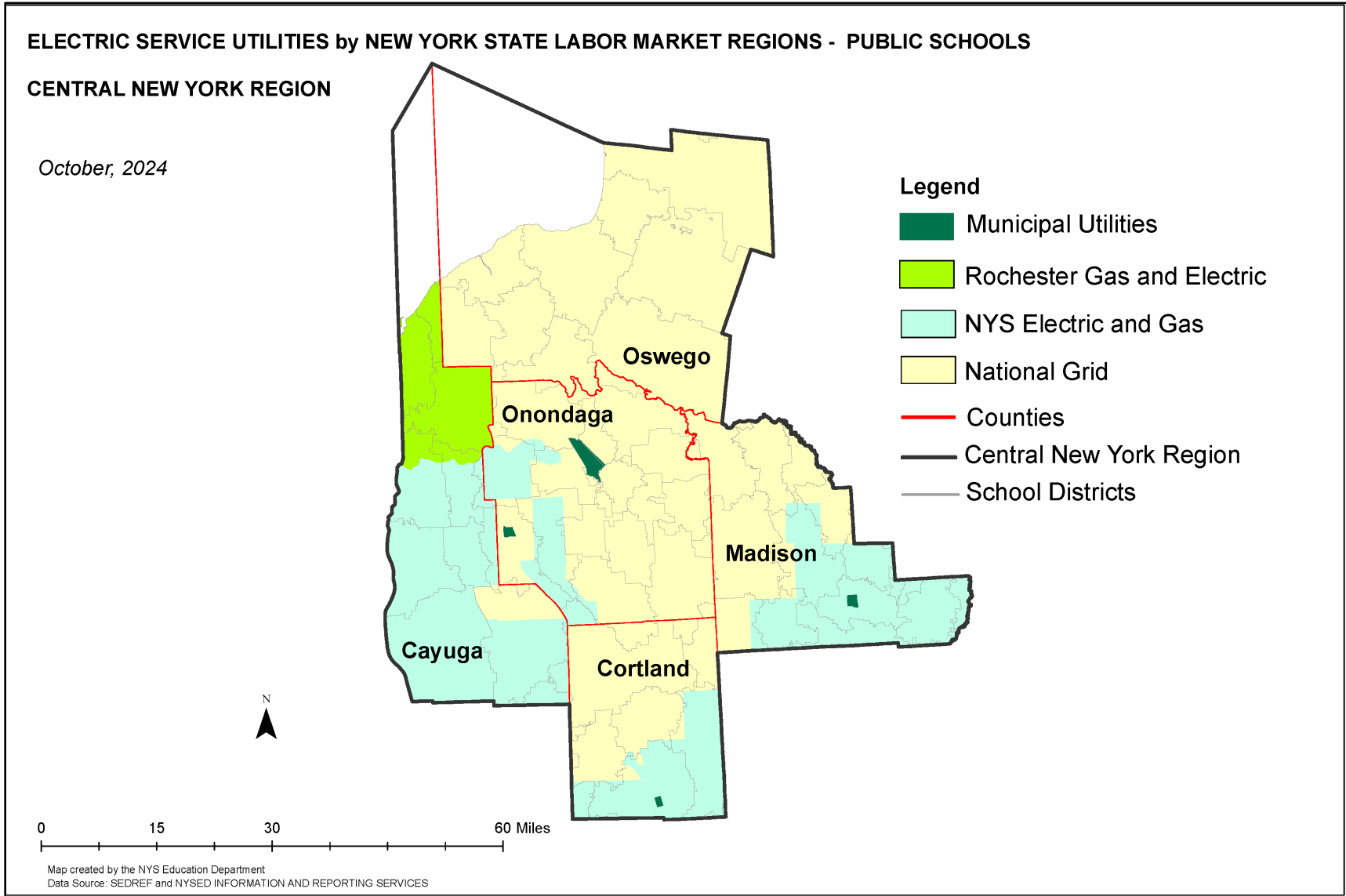


Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+

**CURRENT AND ANTICIPATED ZERO EMISSION BUSES
Central New York Region**



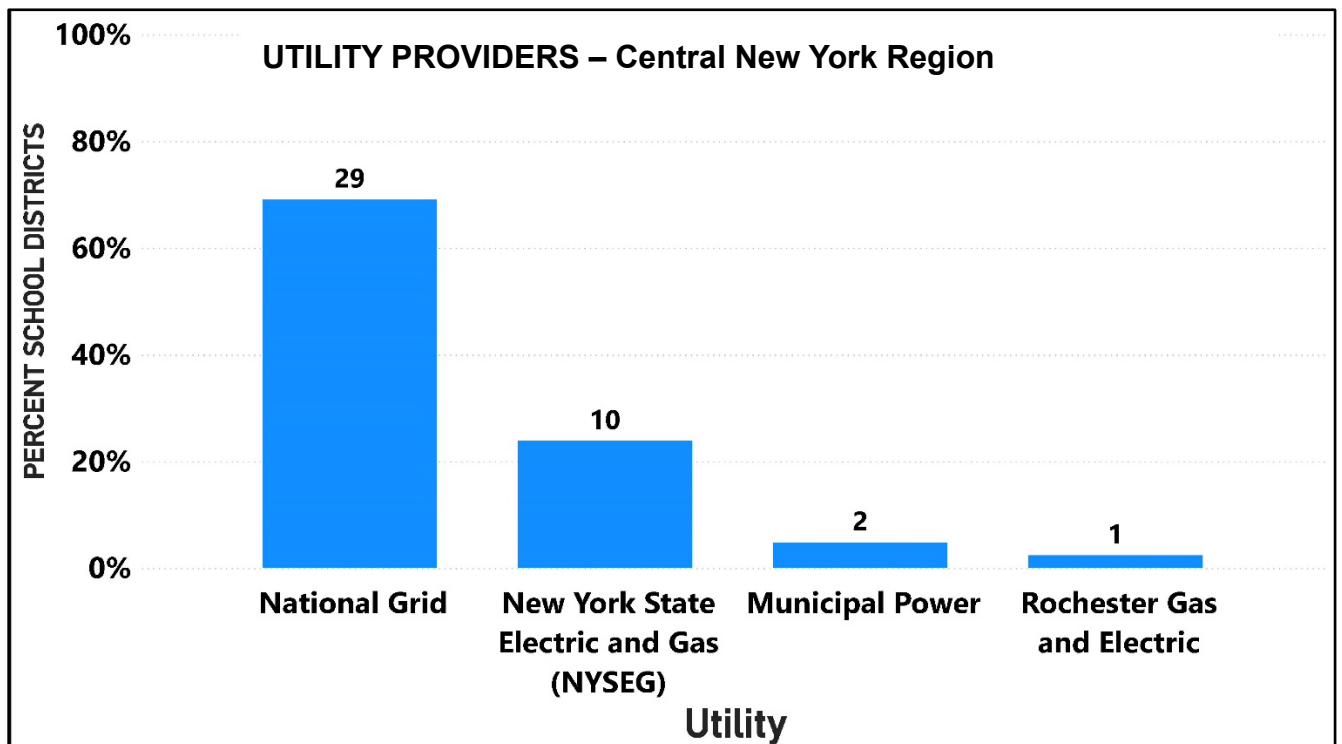
Infrastructure Assessment



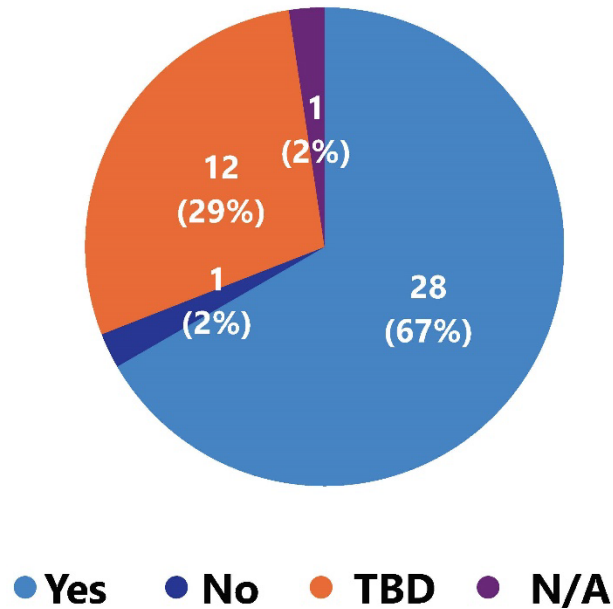
Electric Service

School Districts in the Central New York Region primarily receive electricity from three (3) major utility companies—National Grid, NYSEG, and RG&E. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, thirty (30) are served by National Grid, ten (10) receive electric service from NYSEG, one (1) is under RG&E, and two (2) report receiving service from a municipal utility.

In general, districts in the Central New York Region report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about two-thirds of respondents—twenty-eight (28) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with thirteen (13) additional districts waiting for a determination to be made. Only one (1) district reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



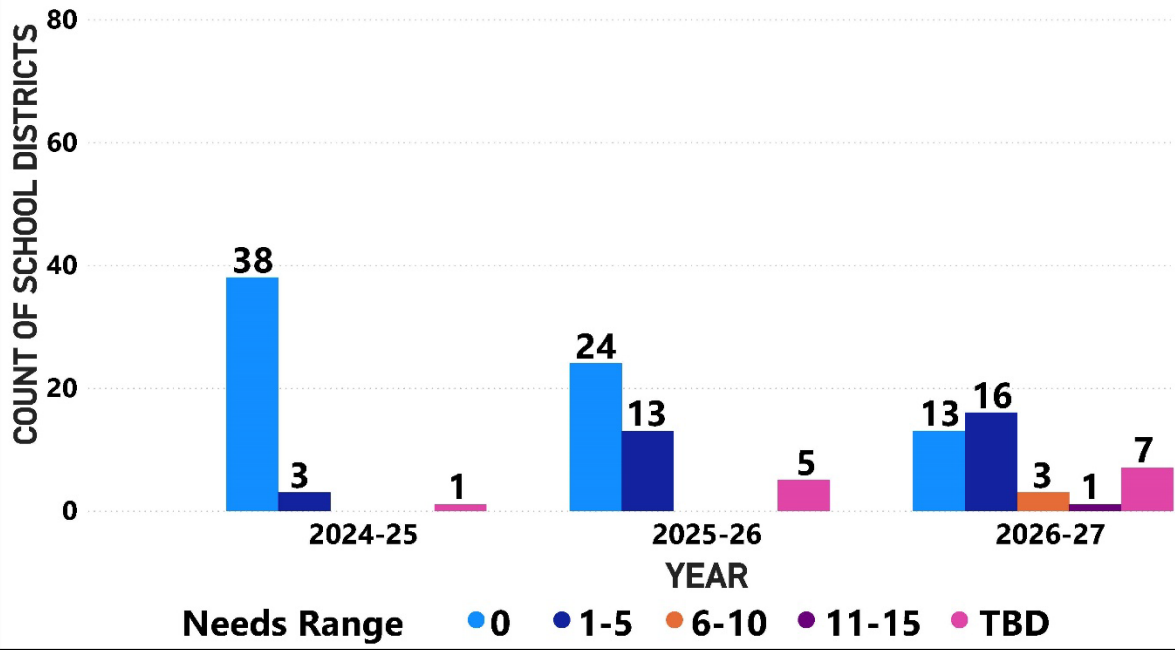
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Central New York Region



Charging Stations and Infrastructure

Thirty-nine (39) school districts in the region report that there are no charging stations available in district, currently. However, three (3) districts report that 1-5 chargers are installed already or are anticipated for 2024-25. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-five (25) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least eight (8) districts anticipate the need for new bus garages, four (4) of which project the need to acquire additional land on which to build new facilities.

CURRENT AND ANTICIPATED CHARGING STATIONS Central New York Region



Southern Tier Region

Regional Summary and Response Rate

The Southern Tier Labor Market Region contains eight (8) counties—Steuben, Schuyler, Chemung, Tompkins, Tioga, Broome, Chenango, and Delaware. Together, there are sixty-three (63) traditional school districts covering an area of approximately 6,088.1 square miles that were responsible for educating 79,521 school-age children in the 2022-23 school year. NYSED received responses from fifty-seven (57) school districts, bringing the overall response rate for the region to about ninety-one percent (91%), with six (6) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSEERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

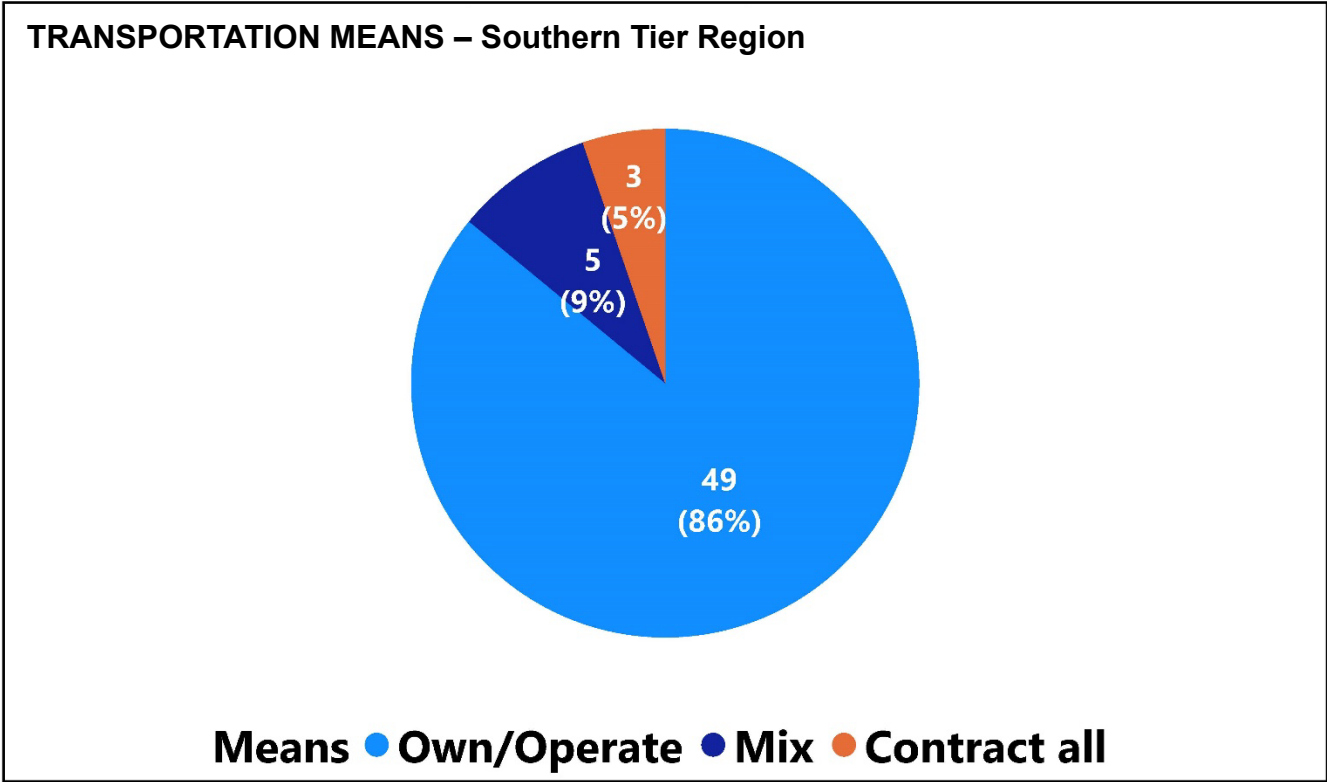
SOUTHERN TIER LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSEERDA FEP	UTILITY FAS
ADDISON CSD	570101	1,076	163.0	Submitted	Applied	
AFTON CSD	080101	477	87.0	Submitted	No Contact	
ANDES CSD	120102	69	99.2	Submitted	No Contact	
ARKPORT CSD	571901	472	65.5	Not Submitted	No Contact	
AVOCA CSD	570201	396	92.7	Submitted	No Contact	
BAINBRIDGE-GUILFORD CSD	080201	784	101.0	Submitted	No Contact	
BATH CSD	570302	1,483	94.8	Submitted	Applied	
BINGHAMTON CITY SD	030200	4,758	10.8	Submitted	No Contact	
BRADFORD CSD	570401	261	46.4	Submitted	Underway	
CAMPBELL-SAVONA CSD	570603	810	84.0	Submitted	No Contact	
CANDOR CSD	600301	706	86.6	Submitted	No Contact	
CANISTEO-GREENWOOD CSD	571502	969	126.1	Submitted	No Contact	
CHARLOTTE VALLEY CSD	120401	347	80.5	Submitted	No Contact	
CHENANGO FORKS CSD	030101	1,343	75.6	Submitted	No Contact	
CHENANGO VALLEY CSD	030701	1,662	25.3	Submitted	Underway	
CORNING CITY SD	571000	4,382	233.2	Submitted	No Contact	
DELHI CSD	120501	738	192.1	Submitted	No Contact	In process
DEPOSIT CSD	031301	471	124.4	Submitted	Underway	
DOWNSVILLE CSD	120301	215	141.6	Submitted	No Contact	
DRYDEN CSD	610301	1,288	93.5	Not Submitted	No Contact	
ELMIRA CITY SD	070600	5,428	109.9	Submitted	No Contact	
ELMIRA HTS CSD	070902	1,043	13.9	Not Submitted	No Contact	
FRANKLIN CSD	120701	193	63.0	Submitted	Underway	

SOUTHERN TIER LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
GEORGETOWN-SOUTH OTSELIC CSD	081401	300	118.0	Submitted	Applied	
GREENE CSD	080601	908	126.9	Submitted	Underway	
GROTON CSD	610501	782	56.1	Submitted	Underway	
HAMMONDSPORT CSD	572901	377	80.0	Submitted	No Contact	
HANCOCK CSD	120906	310	119.5	Submitted	No Contact	
HARPURSVILLE CSD	030501	597	79.9	Not Submitted	No Contact	
HORNELL CITY SD	571800	1,411	36.0	Submitted	Underway	
HORSEHEADS CSD	070901	3,804	143.1	Submitted	Applied	
ITHACA CITY SD	610600	5,023	154.2	Submitted	No Contact	
JASPER-TROUPSBURG CSD	572702	390	144.5	Submitted	No Contact	
JOHNSON CITY CSD	031502	2,292	23.1	Submitted	Underway	
LANSING CSD	610801	1,153	64.4	Submitted	Underway	
MAINE-ENDWELL CSD	031101	2,547	50.1	Submitted	No Contact	
MARGARETVILLE CSD	121401	320	169.7	Submitted	Initial Contact Made	
NEWARK VALLEY CSD	600402	1,025	138.4	Submitted	Underway	
NEWFIELD CSD	610901	689	59.2	Submitted	Complete	
NORWICH CITY SD	081200	1,692	105.2	Not Submitted	No Contact	
ODESSA-MONTOUR CSD	550101	780	86.1	Submitted	Underway	
OWEGO-APALACHIN CSD	600601	1,923	93.3	Not Submitted	No Contact	
OXFORD ACAD & CSD	081501	720	116.9	Submitted	Underway	
PRATTSBURGH CSD	572301	364	74.2	Submitted	No Contact	
ROXBURY CSD	121502	228	84.0	Submitted	Initial Contact Made	
SHERBURNE-EARLVILLE CSD	082001	1,265	157.9	Submitted	No Contact	
SIDNEY CSD	121601	1,073	79.9	Submitted	Underway	
SOUTH KORTRIGHT CSD	121702	317	95.0	Submitted	No Contact	
SOUTH MOUNTAIN-HICKORY COMN SD	030201		1.6	Submitted		
SPENCER-VAN ETTEN CSD	600801	808	144.3	Submitted	Initial Contact Made	
STAMFORD CSD	121701	252	45.9	Submitted	No Contact	
SUSQUEHANNA VALLEY CSD	030601	1,423	60.4	Submitted	Underway	
TIOGA CSD	600903	888	94.3	Submitted	No Contact	
TRUMANSBURG CSD	611001	972	78.5	Submitted	No Contact	In process
UNADILLA VALLEY CSD	081003	797	123.0	Submitted	No Contact	
UNION-ENDICOTT CSD	031501	3,586	28.6	Submitted	Underway	
VESTAL CSD	031601	3,435	48.9	Submitted	Initial Contact Made	
WALTON CSD	121901	839	147.1	Submitted	Underway	
WATKINS GLEN CSD	550301	913	141.7	Submitted	No Contact	

SOUTHERN TIER LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
WAVERLY CSD	600101	1,531	90.8	Submitted	No Contact	
WAYLAND-COHOCTON CSD	573002	1,333	156.1	Submitted	Underway	In process
WHITNEY POINT CSD	031401	1,456	142.3	Submitted	Underway	
WINDSOR CSD	031701	1,627	119.2	Submitted	Underway	

Transportation Means

Nearly all school districts in the Southern Tier Region own and operate buses. Forty-nine (49) districts, or 86% of respondents, currently own and operate all school buses serving districts’ needs; three (3, 5%) districts indicate that all transportation services are contracted out, and five (5, 9%) indicate a mix of both. This is consistent with the NYSED’s observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.



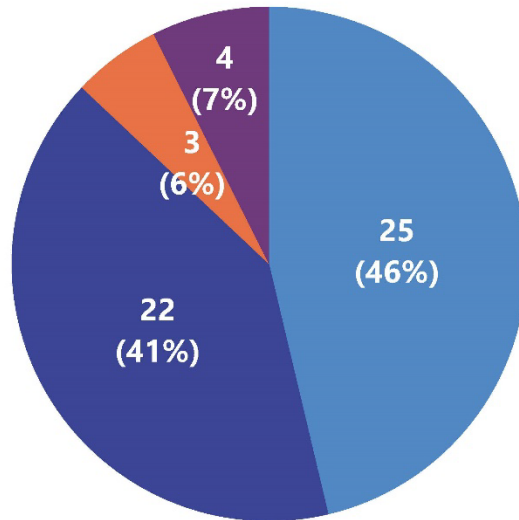
Bus Fleets

Fifty-four (54) school districts in the Southern Tier Region provided NYSED with information on their current bus fleet and anticipated future needs. Twenty-five (25) districts maintain between 1 and 20 buses; twenty-two (22) districts own between 21 and 40 buses; three (3) districts own between 41 and 60 buses; and four (4) districts have fleets in excess of 60 vehicles. Of these reported fleets, fifty (50) school districts reported that no zero emission buses are currently owned. Four (4) districts, however, do currently maintain zero emission buses at this time:

- Downsville currently operates one (1) zero emission bus out of a fleet of fourteen buses (14, 7.1%)
- Ithaca City currently operates five (5) zero emission buses out of a fleet of eighty-five buses (85, 5.9%)
- Johnson City currently operates one (1) zero emission bus out of a fleet of thirty-five buses (35, 2.9%)
- Newfield currently operates one (1) zero emission bus out of a fleet of nineteen buses (19, 5.3%)

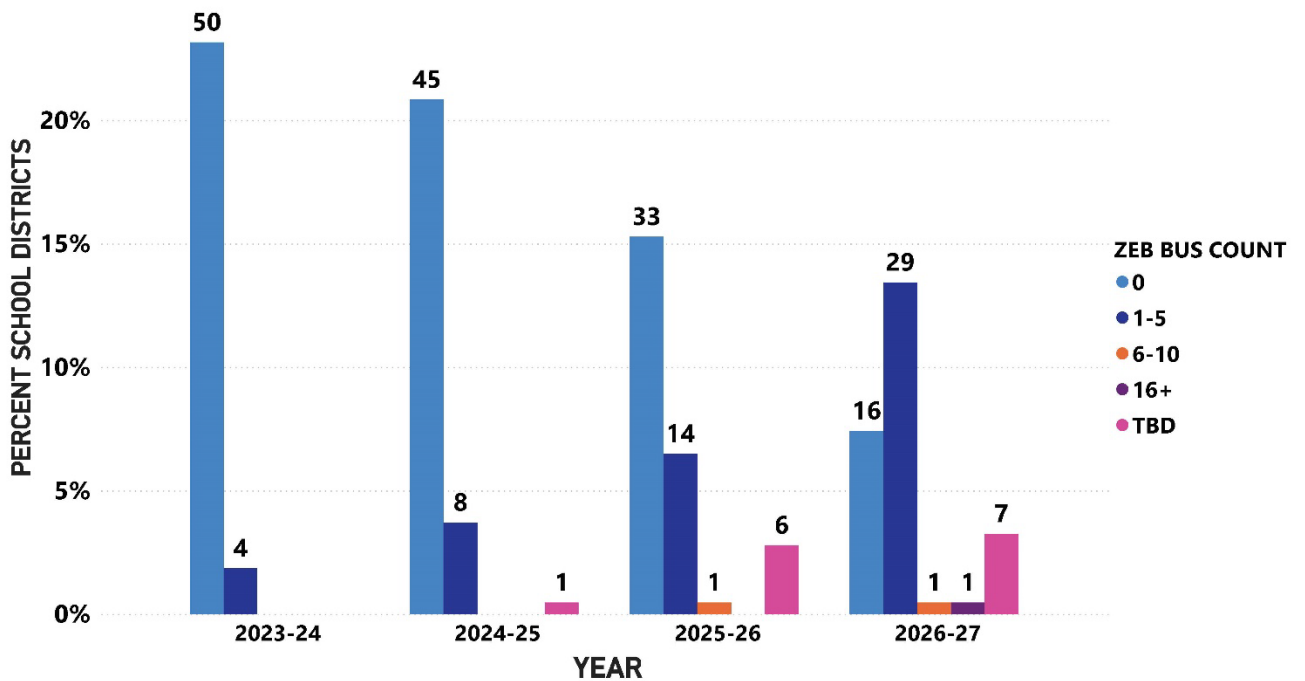
Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

CURRENT FLEET SIZE – Southern Tier Region



Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+

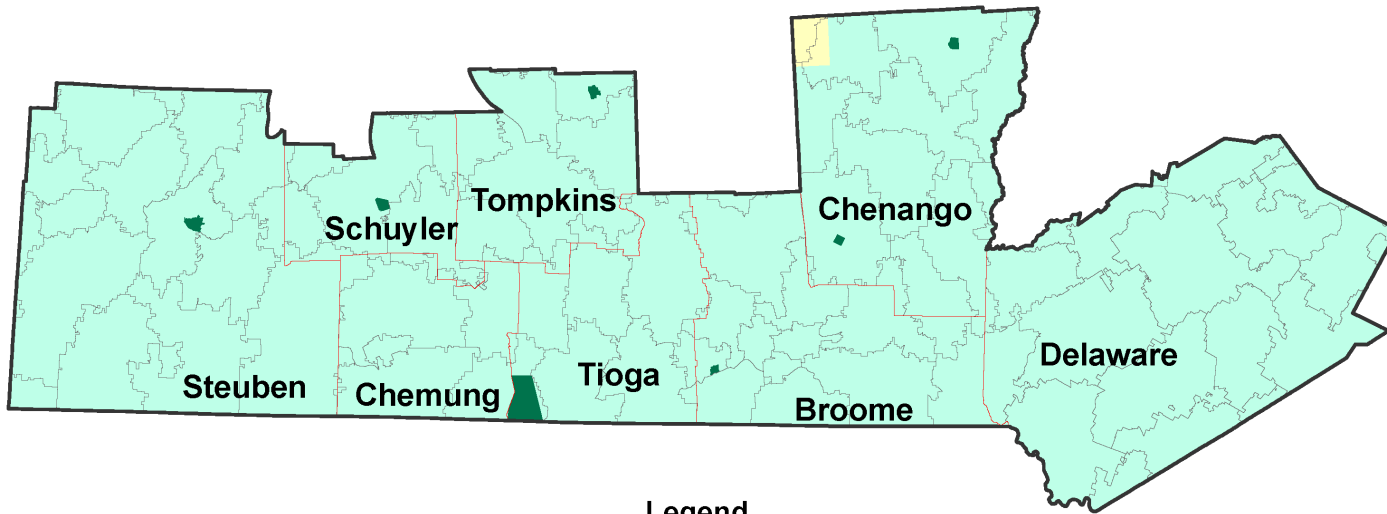
SOUTHERN TIER LABOR MARKET - CURRENT ZERO EMISSIONS BUSES AND ANTICIPATED ACQUISITIONS IN YEARS 2024-25 THROUGH 2026-27
Southern Tier Region









Infrastructure Assessment

ELECTRIC SERVICE UTILITIES by NEW YORK STATE LABOR MARKET REGIONS - PUBLIC SCHOOLS SOUTHERN TIER REGION

October, 2024



Legend

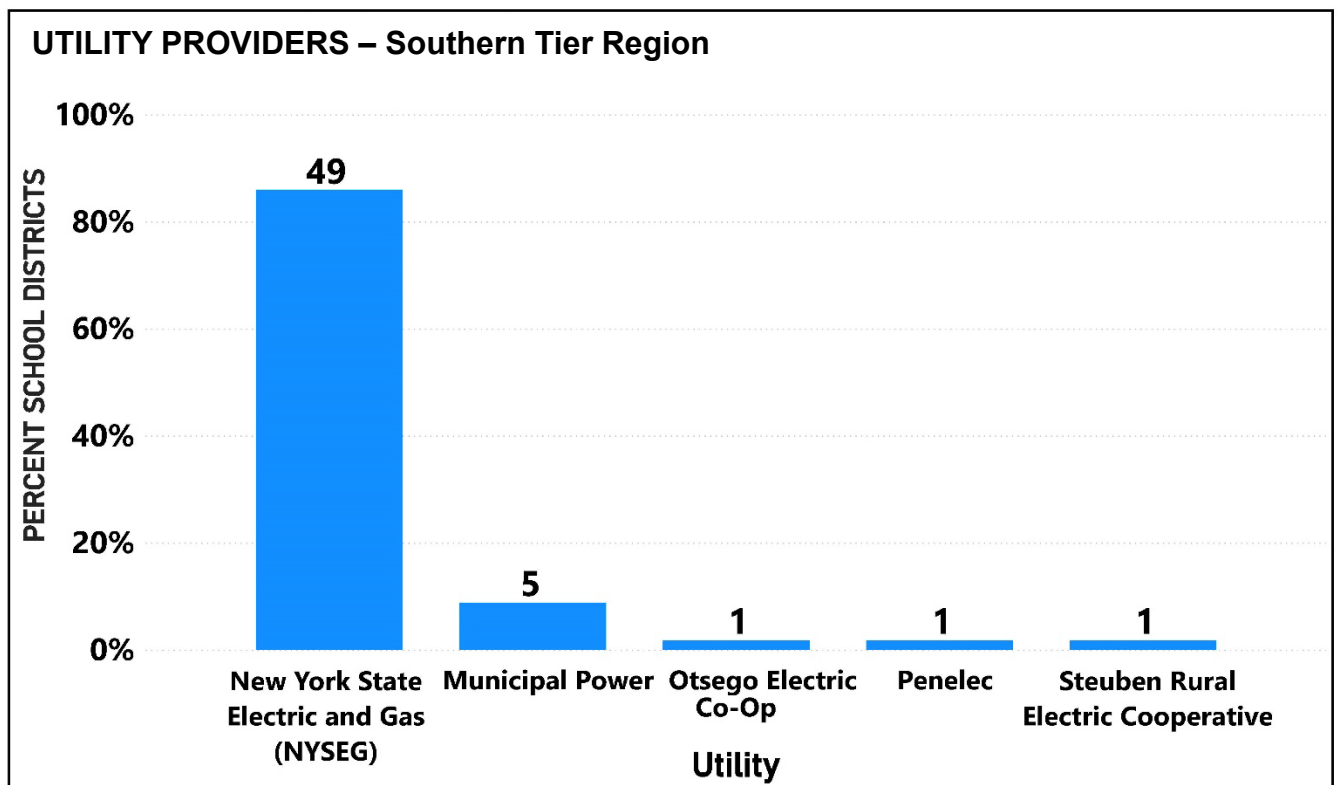
-  Municipal Utilities
-  NYS Electric and Gas
-  National Grid
-  Counties
-  Southern Tier Region
-  School Districts

Map created by the NYS Education Department
Data Source: SEDREF and NYSED INFORMATION AND REPORTING SERVICES

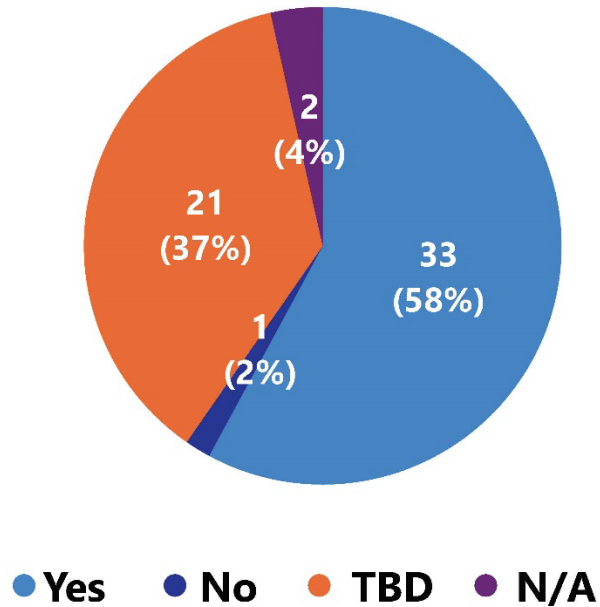
Electric Service

School Districts in the Southern Tier Region primarily receive electricity from one (1) major utility company—NYSEG. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, forty-nine (49) receive electric service from NYSEG and eight (8) report receiving service from a municipal utility or other provider.

In general, districts in the Southern Tier report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about half of respondents—thirty-three (33) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with twenty-one (21) additional districts waiting for a determination to be made. Only one (1) district reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



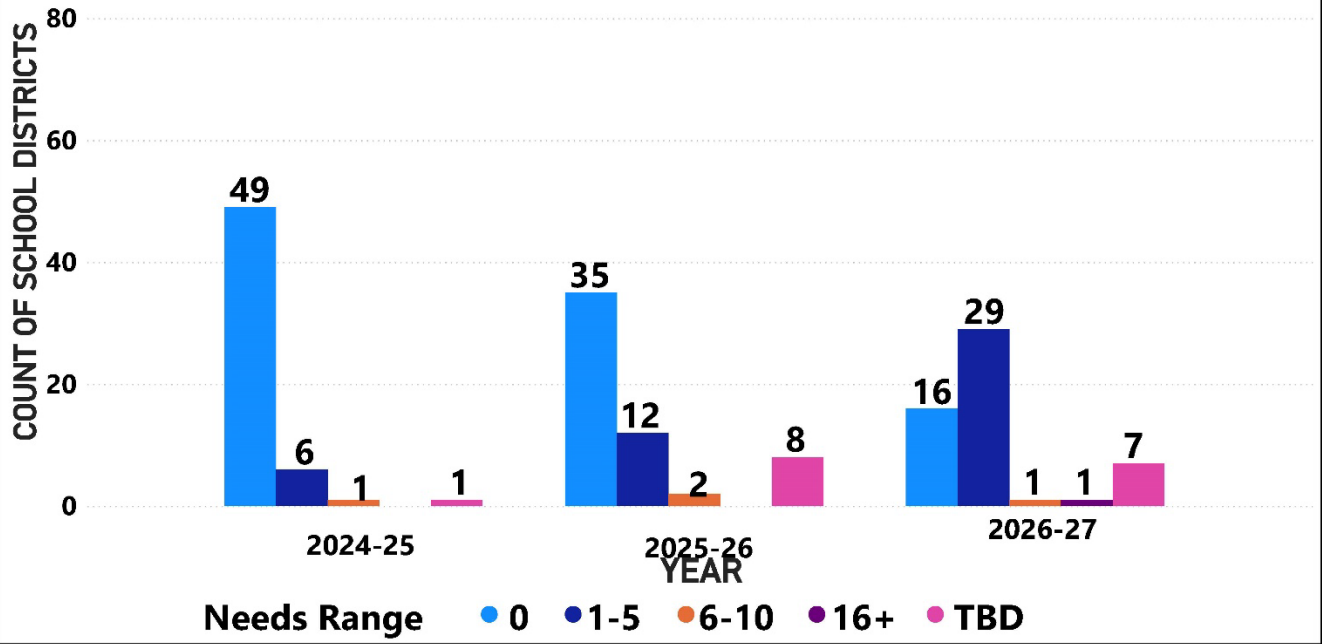
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Southern Tier Region



Charging Stations and Infrastructure

Forty-nine (49) school districts in the region report that there are no charging stations available in district, currently. However, six (6) districts report that 1-5 chargers are installed already or are anticipated for 2024-25. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-six (26) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least eight (8) districts anticipate the need to construct new transportation facilities to meet the district's needs.

CURRENT AND ANTICIPATED CHARGING STATIONS
Southern Tier Region



North Country Region

Regional Summary and Response Rate

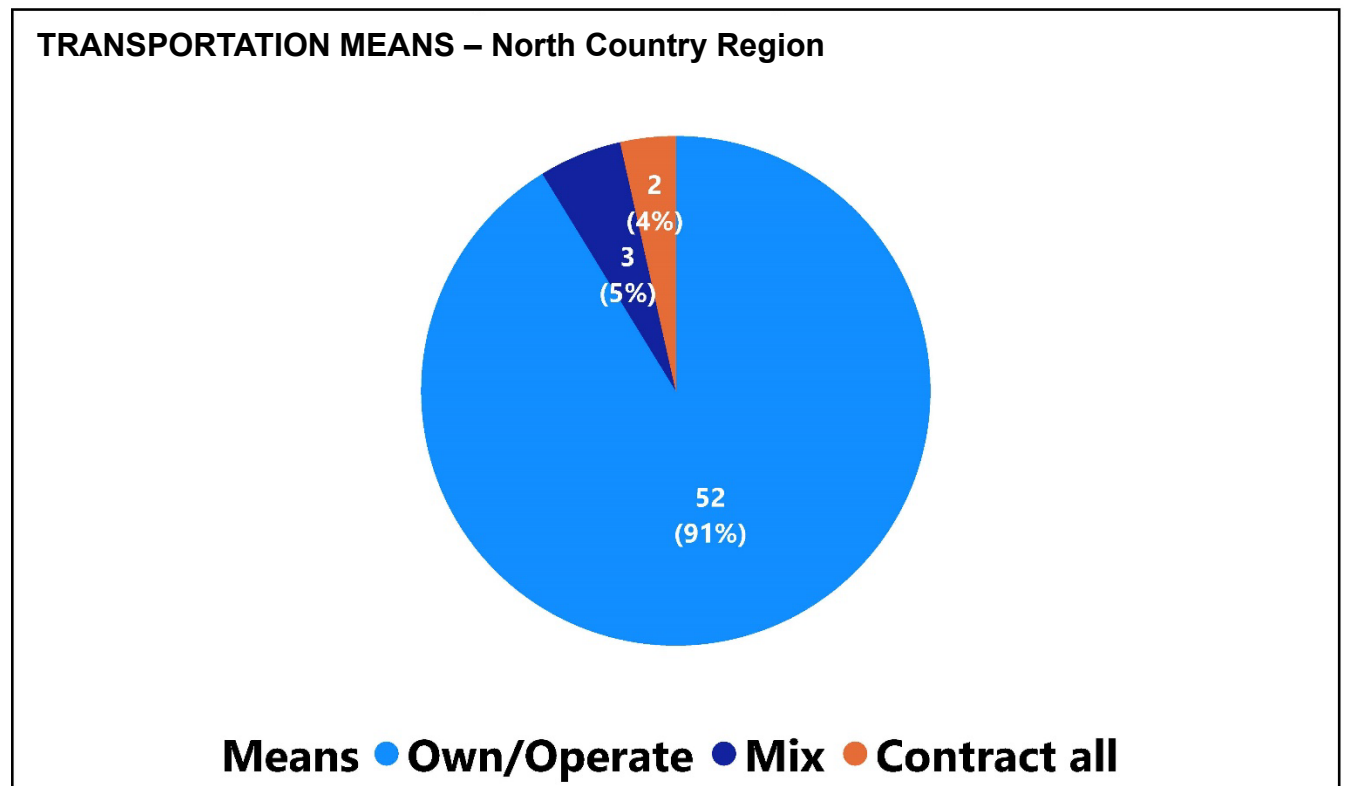
The North Country Labor Market Region contains seven (7) counties—Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence. Together, there are sixty-five (65) traditional school districts covering an area of approximately 11,309.4 square miles that were responsible for educating 56,773 school-age children in the 2022-23 school year. NYSED received responses from fifty-seven (57) school districts, bringing the overall response rate for the region to about eighty-eight percent (88%), with eight (8) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

NORTH COUNTRY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
ALEXANDRIA CSD	220202	461	72.6	Submitted	Complete	Complete
AUSABLE VALLEY CSD	090201	1,187	274.3	Submitted	Underway	
BEAVER RIVER CSD	231301	872	248.3	Submitted	Underway	Complete
BEEKMANTOWN CSD	090301	2,025	92.6	Submitted	No Contact	
BELLEVILLE HENDERSON CSD	220909	502	108.1	Submitted	Underway	Complete
BOQUET VALLEY CSD	151801	399	236.4	Submitted		
BRASHER FALLS CSD	510101	982	154.7	Submitted	No Contact	Complete
BRUSHTON-MOIRA CSD	161601	786	108.7	Submitted	Underway	Complete
CANTON CSD	510201	1,115	97.5	Submitted	No Contact	
CARTHAGE CSD	222201	3,030	189.4	Submitted	No Contact	Complete
CHATEAUGAY CSD	160801	535	124.2	Submitted	No Contact	
CHAZY UFSD	090601	462	44.5	Not Submitted	Initial Contact Made	
CLIFTON-FINE CSD	510401	252	296.2	Submitted	No Contact	Complete
COLTON-PIERREPONT CSD	510501	373	258.5	Submitted	Underway	Complete
COPENHAGEN CSD	230201	472	88.3	Submitted	Underway	Complete
CROWN POINT CSD	150203	321	76.2	Submitted	Underway	
EDWARDS-KNOX CSD	513102	515	230.4	Submitted	No Contact	Complete
GENERAL BROWN CSD	220401	1,386	85.4	Not Submitted	Underway	Complete
GOUVERNEUR CSD	511101	1,457	331.1	Submitted	No Contact	Complete
HAMMOND CSD	511201	247	100.6	Submitted	No Contact	Complete
HARRISVILLE CSD	230301	330	176.9	Submitted	No Contact	
HERMON-DEKALB CSD	511301	381	91.2	Submitted	No Contact	Complete
HEUVELTON CSD	512404	552	109.1	Submitted	No Contact	Complete
INDIAN LAKE CSD	200401	126	265.7	Submitted	Initial Contact Made	Complete

NORTH COUNTRY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
INDIAN RIVER CSD	220301	3,575	283.3	Submitted	No Contact	Complete
INLET COMN SD	200501		66.8	Submitted		
KEENE CSD	150601	169	161.4	Submitted	No Contact	
LA FARGEVILLE CSD	221401	496	79.5	Submitted	No Contact	Complete
LAKE PLACID CSD	151102	567	173.2	Submitted	No Contact	
LAKE PLEASANT CSD	200601	73	195.8	Submitted	No Contact	Complete
LISBON CSD	511602	560	75.9	Not Submitted	No Contact	Complete
LONG LAKE CSD	200701	59	386.6	Submitted	No Contact	
LOWVILLE ACAD & CSD	230901	1,282	324.6	Submitted	Underway	Complete
LYME CSD	221301	337	65.7	Submitted	No Contact	Complete
MADRID-WADDINGTON CSD	511901	655	118.4	Submitted	No Contact	Complete
MALONE CSD	161501	2,196	366.2	Not Submitted	No Contact	
MASSENA CSD	512001	2,428	134.5	Submitted	Initial Contact Made	
MINERVA CSD	150801	119	135.6	Submitted	Initial Contact Made	Complete
MORIAH CSD	150901	700	76.3	Submitted	Applied	Complete
MORRISTOWN CSD	512101	329	82.3	Submitted	No Contact	Complete
NEWCOMB CSD	151001	55	252.3	Submitted	No Contact	
NORTHEASTERN CLINTON CSD	090501	1,219	124.0	Submitted	No Contact	
NORTHERN ADIRONDACK CSD	090901	802	378.6	Submitted	Applied	
NORWOOD-NORFOLK CSD	512201	973	87.1	Submitted	No Contact	Complete
OGDENSBURG CITY SD	512300	1,457	16.9	Submitted	Underway	
PARISHVILLE-HOPKINTON CSD	512501	345	186.5	Submitted	No Contact	Complete
PERU CSD	091101	1,869	132.9	Not Submitted	Underway	
PISECO COMN SD	200101		270.6	Submitted		
PLATTSBURGH CITY SD	091200	1,715	2.8	Not Submitted	No Contact	
POTSDAM CSD	512902	1,287	95.5	Submitted	No Contact	Complete
RAQUETTE LAKE UFSD	200702		92.2	Submitted		
SACKETS HARBOR CSD	221001	428	63.6	Submitted	Underway	Complete
SALMON RIVER CSD	161201	1,382	127.3	Submitted	Underway	Complete
SARANAC CSD	091402	1,502	178.2	Submitted	Applied	
SARANAC LAKE CSD	161401	1,094	602.1	Submitted	Initial Contact Made	Complete
SCHROON LAKE CSD	151401	238	329.7	Not Submitted	No Contact	
SOUTH JEFFERSON CSD	220101	1,827	213.6	Submitted	Applied	Complete
SOUTH LEWIS CSD	231101	1,043	338.1	Submitted	No Contact	Complete
ST REGIS FALLS CSD	161801	227	239.0	Submitted	No Contact	
THOUSAND ISLANDS CSD	220701	874	193.6	Submitted	Underway	Complete
TICONDEROGA CSD	151501	719	136.2	Submitted	Applied	
TUPPER LAKE CSD	160101	759	279.9	Submitted	No Contact	
WATERTOWN CITY SD	222000	4,261	46.0	Not Submitted	No Contact	Complete
WELLS CSD	200901	133	269.4	Submitted	Underway	Complete
WILLSBORO CSD	151701	251	66.7	Submitted	Underway	

Transportation Means

Nearly all school districts in the North Country Region own and operate buses. fifty-two (52) districts, or 91% of respondents, currently own and operate all school buses serving districts' needs; two (2, 4%) districts indicate that all transportation services are contracted out, and three (3, 5%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.



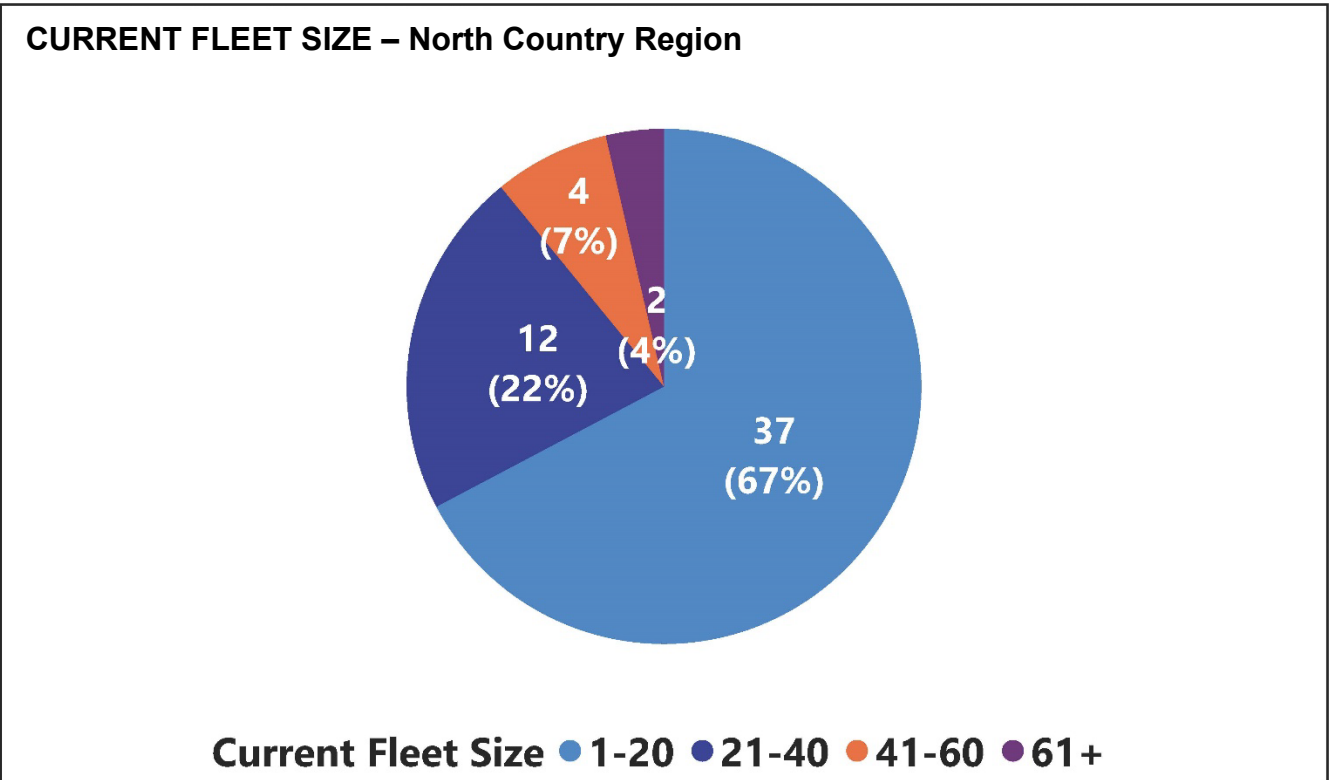
Bus Fleets

Fifty-five (55) school districts in the North Country Region provided NYSED with information on their current bus fleet and anticipated future needs. Thirty-seven (37) districts maintain between 1 and 20 buses; twelve (12) districts own between 21 and 40 buses; four (4) districts own between 41 and 60 buses; and two (2) districts have fleets in excess of 60 vehicles. Of these reported fleets, fifty (50) school districts reported that no

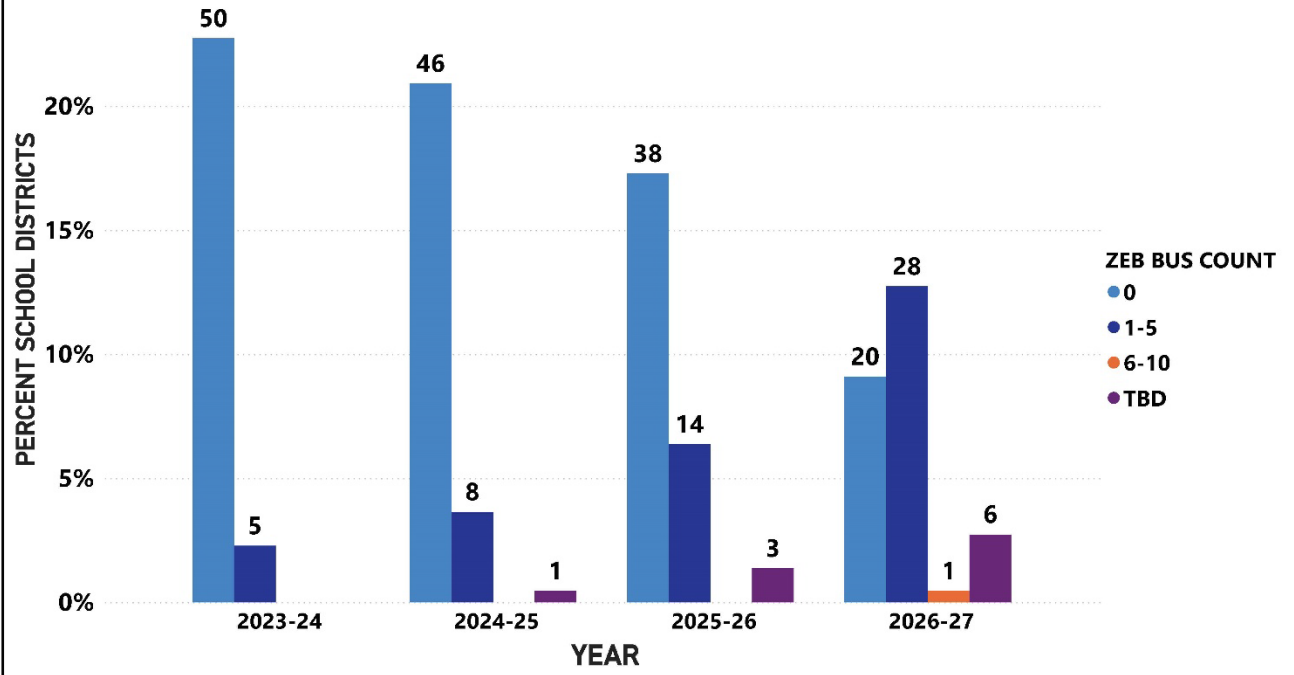
zero emission buses are currently owned. Five (5) districts, however, do currently maintain zero emission buses at this time:

- Alexandria currently operates two (2) zero emission buses out of a fleet of seventeen buses (17, 11.8%)
- Brushton-Moira currently operates one (1) zero emission bus out of a fleet of fourteen buses (14, 7.1%)
- Keene currently operates one (1) zero emission bus out of a fleet of nine (9, 11.1%)
- Norwood-Norfolk currently operates one (1) zero emission bus out of a fleet of twenty-four buses (24, 4.1%)
- Salmon River currently operates two (2) zero-emission buses out of a fleet of fifty-four buses (54, 3.7%)

Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.



CURRENT AND ANTICIPATED ZERO EMISSION BUSES North Country Region

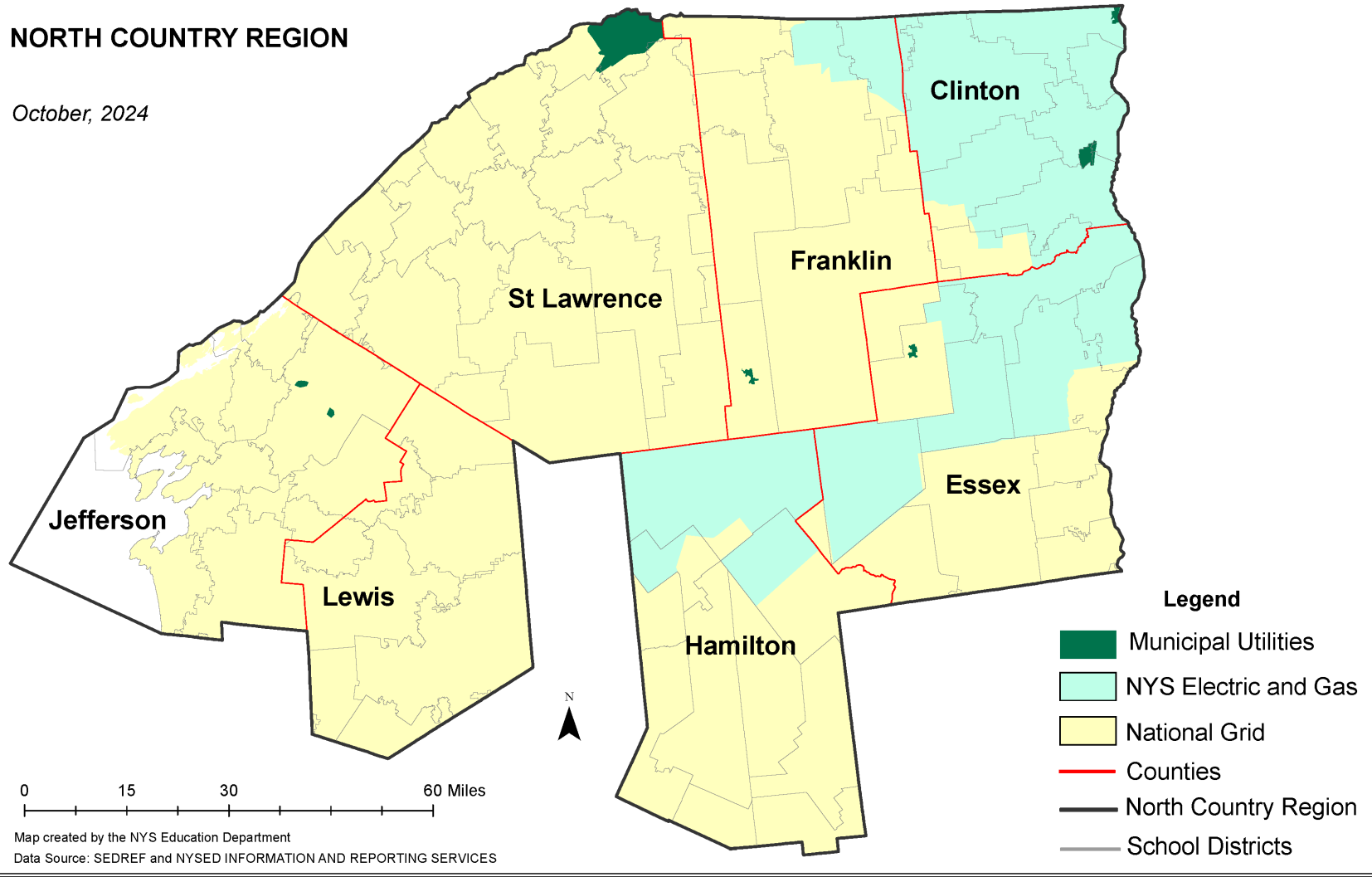


Infrastructure Assessment

ELECTRIC SERVICE UTILITIES by NEW YORK STATE LABOR MARKET REGIONS - PUBLIC SCHOOLS

NORTH COUNTRY REGION

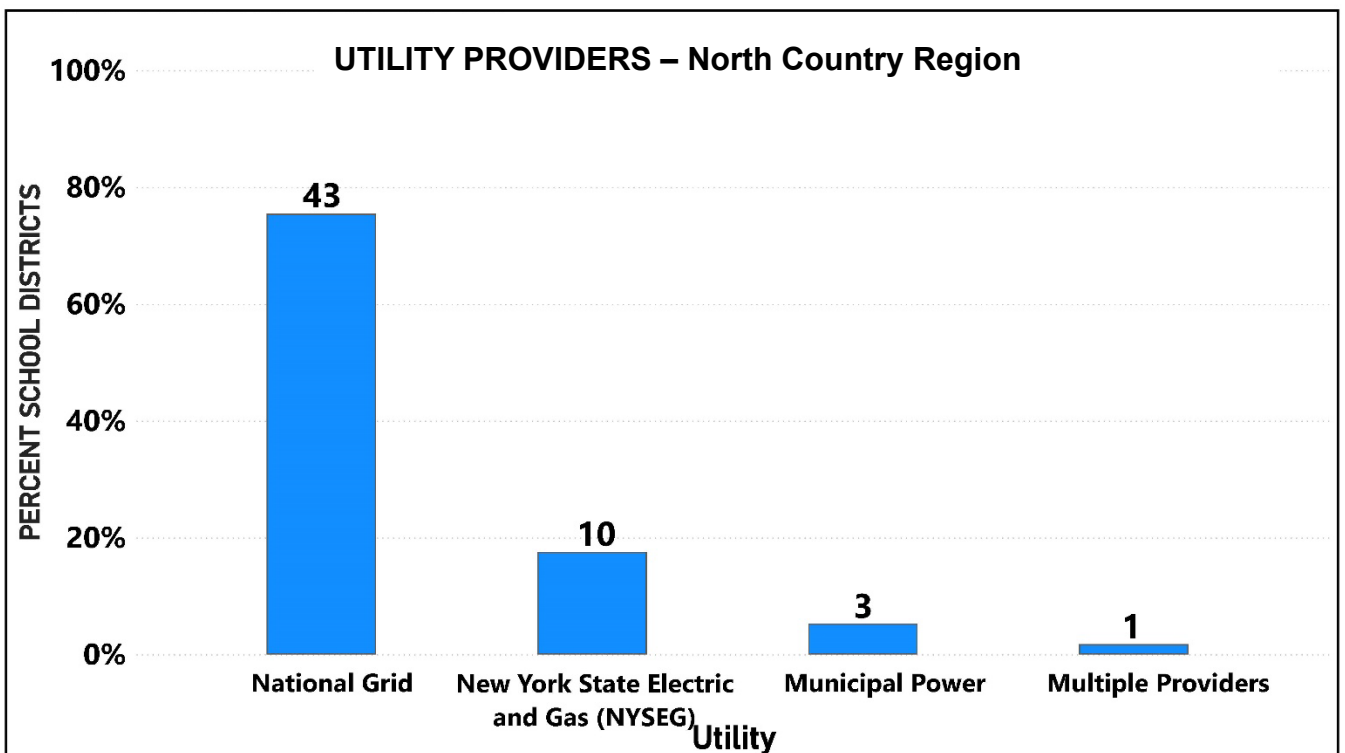
October, 2024



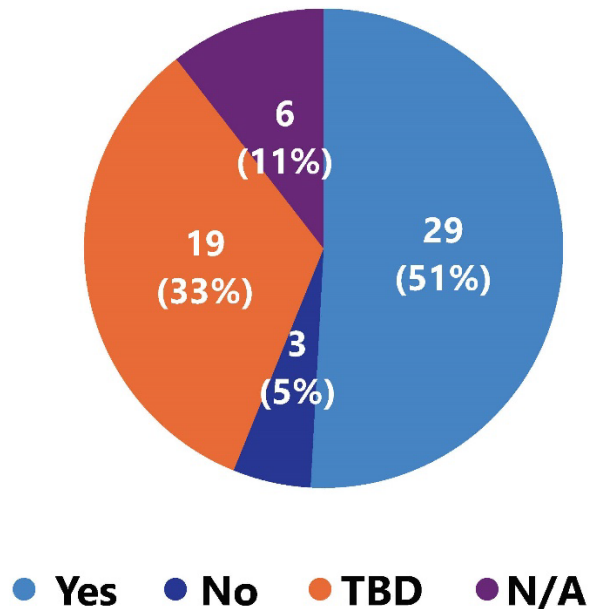
Electric Service

School Districts in the North Country Region primarily receive electricity from two (2) major utility companies—NYSEG and National Grid. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, ten (10) receive electric service from NYSEG, forty-three (43) purchase electricity from National Grid, and four (4) report receiving service from a municipal utility or other providers.

In general, districts in the North Country report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about half of respondents—twenty-nine (29) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with nineteen (19) additional districts waiting for a determination to be made. Three (3) districts reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



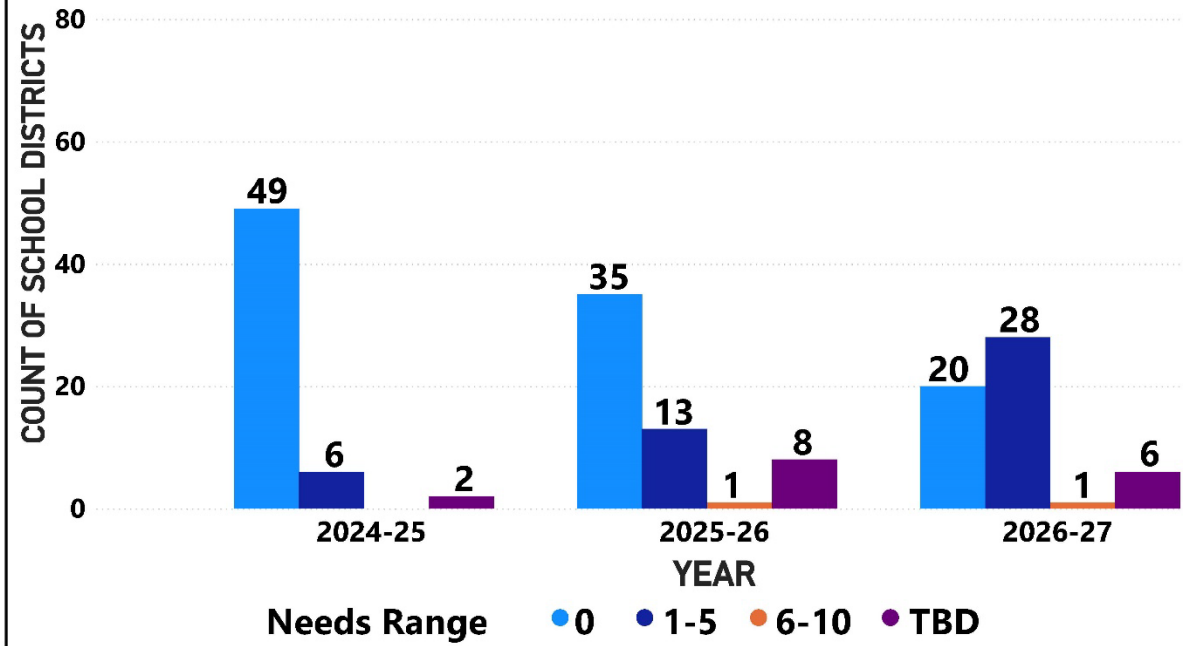
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – North Country Region



Charging Stations and Infrastructure

Forty-nine (49) school districts in the region report that there are no charging stations available in district, currently. However, six (6) districts report that 1-5 chargers are installed already or are anticipated for 2024-25. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-nine (29) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least thirteen (13) districts anticipate the need to construct new transportation facilities to meet the district's needs, with one (1) district—South Jefferson—expecting to require two (2) new garage facilities. All thirteen districts cited the need for indoor storage and charging to mitigate battery life issues in cold weather.

CURRENT AND ANTICIPATED CHARGING STATIONS
North Country Region



Mohawk Valley Region

Regional Summary and Response Rate

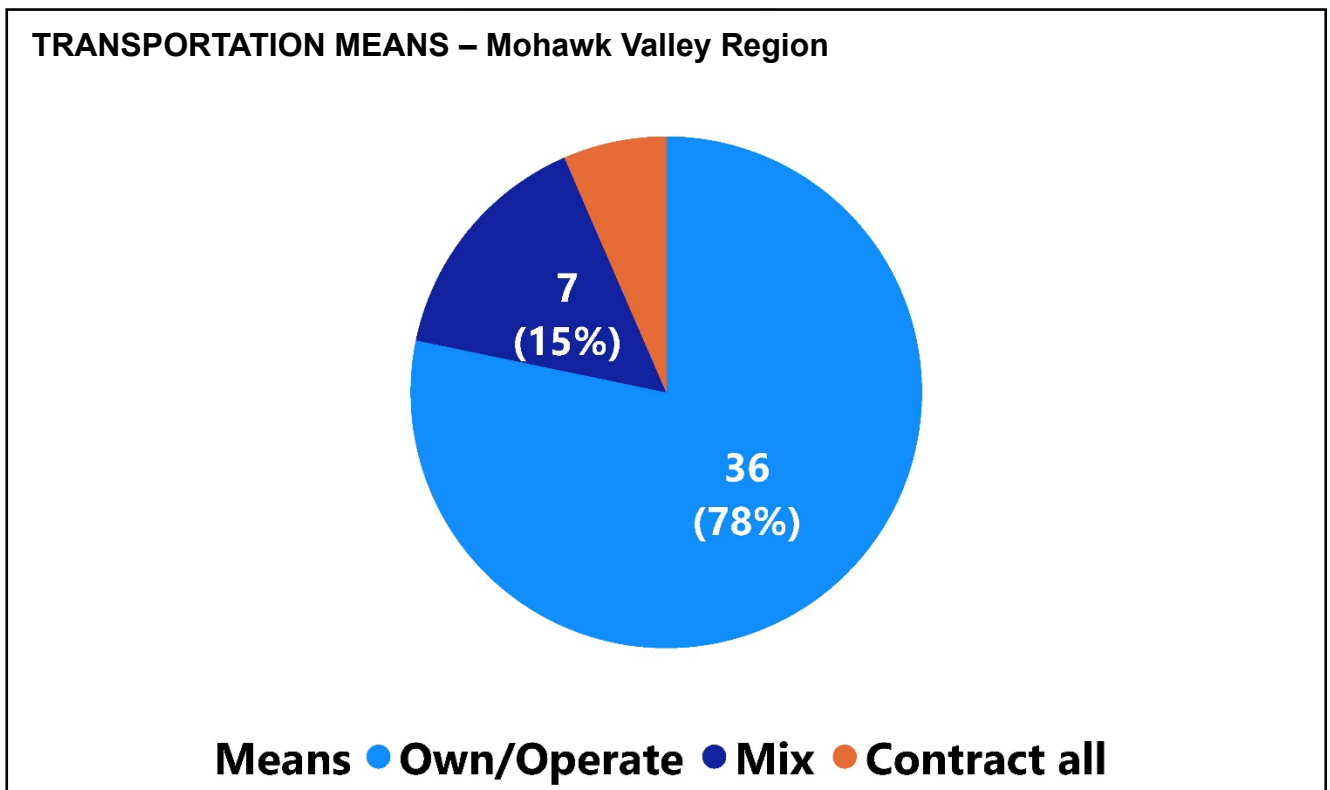
The Mohawk Valley Labor Market Region contains six (6) counties—Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie. Together, there are fifty-four (54) traditional school districts covering an area of approximately 5,392.5 square miles that were responsible for educating 65,013 school-age children in the 2022-23 school year. NYSED received responses from forty-six (46) school districts, bringing the overall response rate for the region to about eighty-five percent (85%), with eight (8) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSEDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

MOHAWK VALLEY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSEDA FEP	UTILITY FAS
ADIRONDACK CSD	410401	1,178	360.5	Submitted	Applied	
AMSTERDAM CITY SD	270100	3,789	77.4	Submitted	Initial Contact Made	Complete
BROADALBIN-PERTH CSD	171102	1,693	87.6	Not Submitted	Underway	Complete
CAMDEN CSD	410601	1,969	303.4	Submitted	Initial Contact Made	
CANAJOHARIE CSD	270301	855	98.3	Submitted	Underway	Complete
CENTRAL VALLEY CSD AT ILION-MOHAWK	212101	2,086	55.1	Submitted	No Contact	
CHERRY VALLEY-SPRINGFIELD CSD	472202	460	137.2	Submitted	Applied	Complete
CLINTON CSD	411101	1,214	38.0	Submitted	No Contact	
COBLESKILL-RICHMONDVILLE CSD	541102	1,582	181.2	Submitted	Applied	Complete
COOPERSTOWN CSD	471701	787	98.3	Submitted	Initial Contact Made	
DOLGEVILLE CSD	211003	796	175.9	Not Submitted	No Contact	Complete
EDMESTON CSD	470501	363	84.8	Submitted	Initial Contact Made	
FONDA-FULTONVILLE CSD	270601	1,277	85.5	Submitted	Underway	Complete
FORT PLAIN CSD	270701	710	56.6	Submitted	Underway	Complete
FRANKFORT-SCHUYLER CSD	210402	848	39.5	Not Submitted	No Contact	
GILBERTSVILLE-MOUNT UPTON CSD	470202	337	62.5	Submitted	Complete	
GILBOA-CONESVILLE CSD	540801	296	134.8	Submitted	No Contact	

MOHAWK VALLEY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
GLOVERSVILLE CITY SD	170500	2,457	88.8	Not Submitted	Underway	Complete
HERKIMER CSD	210601	1,095	22.4	Submitted	No Contact	
HOLLAND PATENT CSD	412201	1,246	114.4	Submitted	Underway	Complete
JEFFERSON CSD	540901	148	70.1	Submitted	Applied	
JOHNSTOWN CITY SD	170600	1,468	55.1	Submitted	Underway	Complete
LAURENS CSD	470801	313	28.2	Submitted	Underway	
LITTLE FALLS CITY SD	210800	1,088	57.4	Submitted	Initial Contact Made	Complete
MAYFIELD CSD	170801	829	49.5	Not Submitted	No Contact	Complete
MIDDLEBURGH CSD	541001	651	179.7	Submitted	Applied	Complete
MILFORD CSD	471101	348	58.4	Submitted	Applied	
MORRIS CSD	471201	319	66.6	Submitted	Underway	
MOUNT MARKHAM CSD	212001	1,067	96.4	Submitted	No Contact	
NEW HARTFORD CSD	411501	2,549	27.5	Submitted	No Contact	Complete
NORTHVILLE CSD	170901	431	142.9	Not Submitted	Underway	Complete
NY MILLS UFSD	411504	547	2.7	Submitted	No Contact	
ONEONTA CITY SD	471400	1,720	21.8	Submitted	No Contact	
OPPENHEIM-EPHRATAH-ST. JOHNSVILLE CSD	271201	751	117.7	Submitted	Initial Contact Made	Complete
ORISKANY CSD	412901	547	24.4	Submitted	Applied	Complete
OTEGO-UNADILLA CSD	471601	785	83.2	Submitted	No Contact	
POLAND CSD	211103	491	458.8	Submitted	Initial Contact Made	Complete
REMSSEN CSD	411701	407	68.4	Submitted	Underway	Complete
RICHFIELD SPRINGS CSD	472001	436	87.9	Submitted	No Contact	
ROME CITY SD	411800	5,336	99.1	Submitted	Applied	
SAUQUOIT VALLEY CSD	411603	955	39.0	Submitted	Underway	Complete
SCHENEVUS CSD	470901	252	66.0	Submitted	Underway	Complete
SCHOHARIE CSD	541201	865	78.7	Submitted	Applied	Complete
SHARON SPRINGS CSD	541401	266	47.5	Not Submitted	Applied	
SHERRILL CITY SD	412000	1,806	95.2	Submitted	No Contact	Complete
TOWN OF WEBB UFSD	211901	246	511.2	Submitted	No Contact	
UTICA CITY SD	412300	9,517	15.5	Submitted	No Contact	Complete
VAN HORNESVILLE-OWEN D. YOUNG CSD	211701	174	66.0	Submitted	No Contact	Complete
WATERVILLE CSD	411902	737	67.5	Submitted	Initial Contact Made	
WEST CANADA VALLEY CSD	210302	628	107.2	Submitted	No Contact	Complete
WESTMORELAND CSD	412801	873	42.9	Submitted	No Contact	
WHEELERVILLE UFSD	170301	117	53.8	Submitted	Underway	Complete
WHITESBORO CSD	412902	2,980	42.4	Not Submitted	Applied	Complete
WORCESTER CSD	472506	328	61.5	Submitted	Applied	

Transportation Means

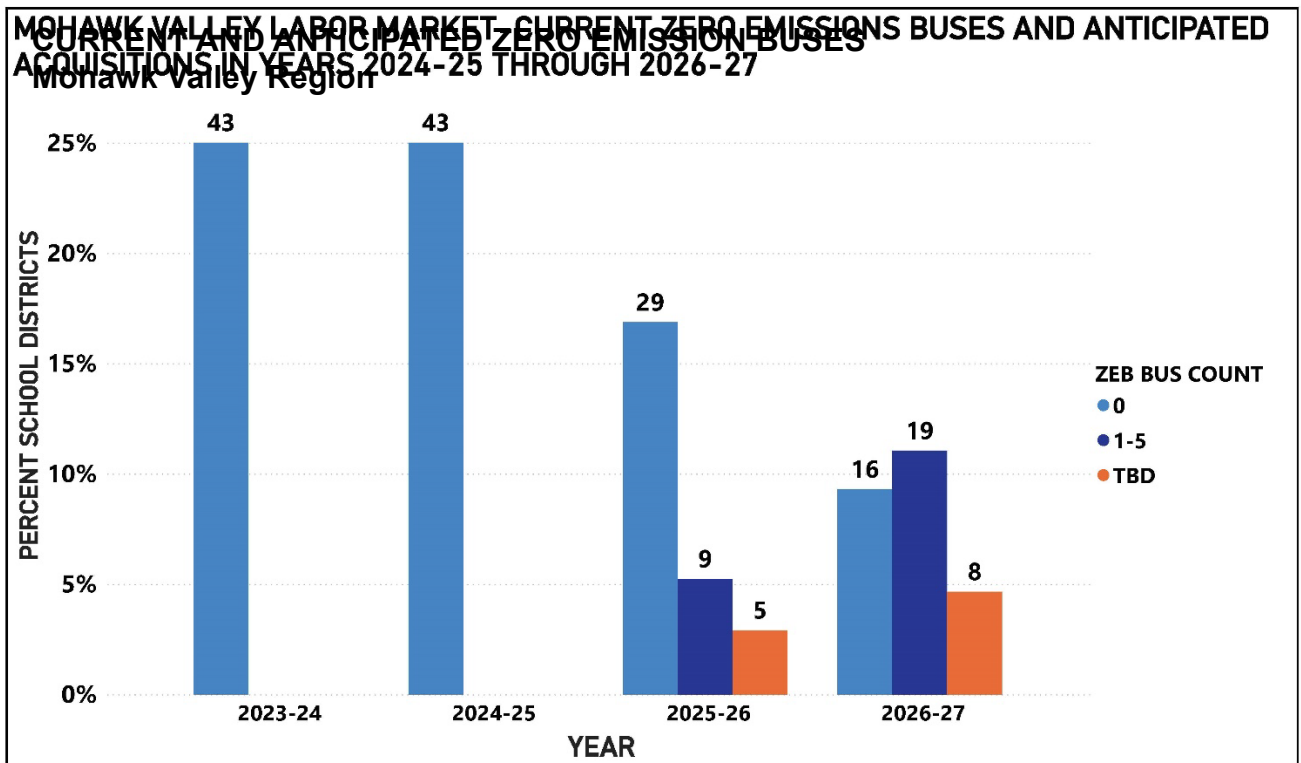
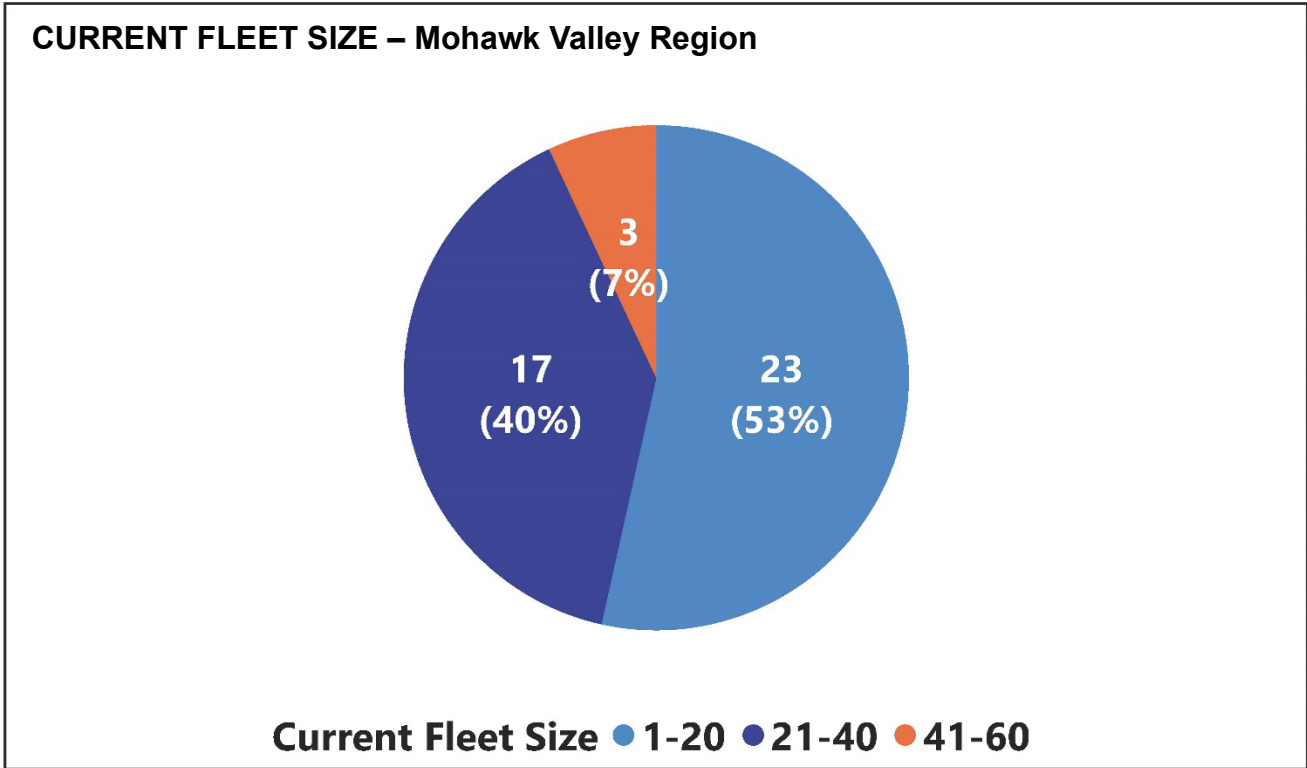
Nearly all school districts in the Mohawk Valley Region own and operate buses. Thirty-six (36) districts, or 78% of respondents, currently own and operate all school buses serving districts' needs; three (3, 7%) districts indicate that all transportation services are contracted out; and seven (7, 15%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.



Bus Fleets

Forty-three (43) school districts in the Mohawk Valley Region provided NYSED with information on their current bus fleet and anticipated future needs. Twenty-three (23) districts maintain between 1 and 20 buses; seventeen (17) districts own between 21 and 40 buses; and three (3) districts own between 41 and 60 buses. None of the respondent school districts in the region currently own any zero-emission buses. Regionally, districts

that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

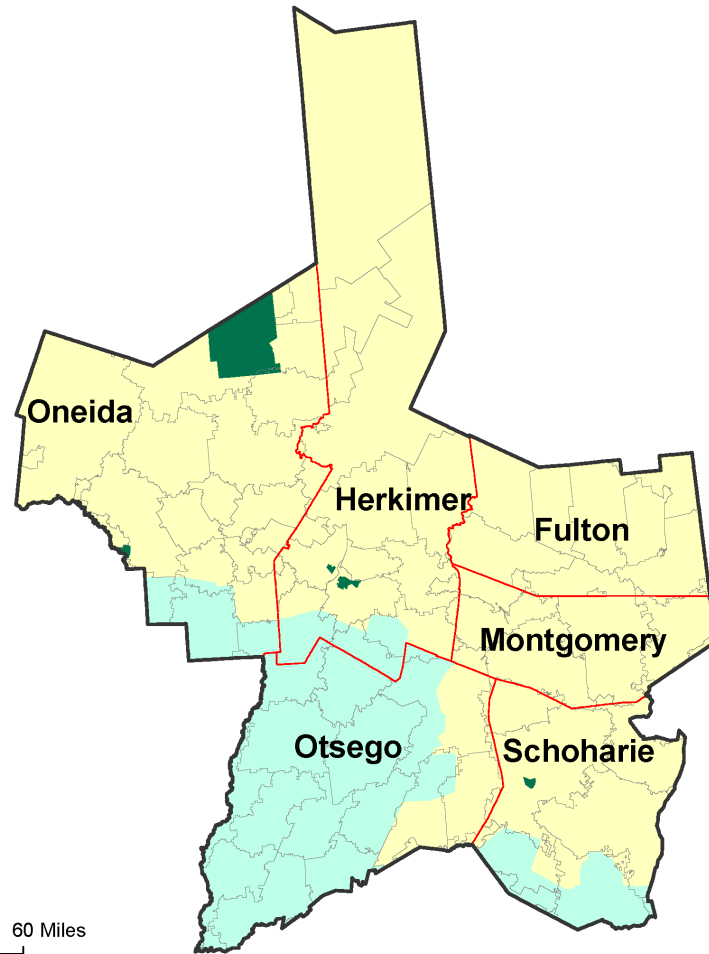


Infrastructure Assessment







ELECTRIC SERVICE UTILITIES by NEW YORK STATE LABOR MARKET REGIONS - PUBLIC SCHOOLS

MOHAWK VALLEY REGION

October, 2024



Legend

-  Municipal Utilities
-  NYS Electric and Gas
-  National Grid
-  Counties
-  Mohawk Valley Region
-  School Districts

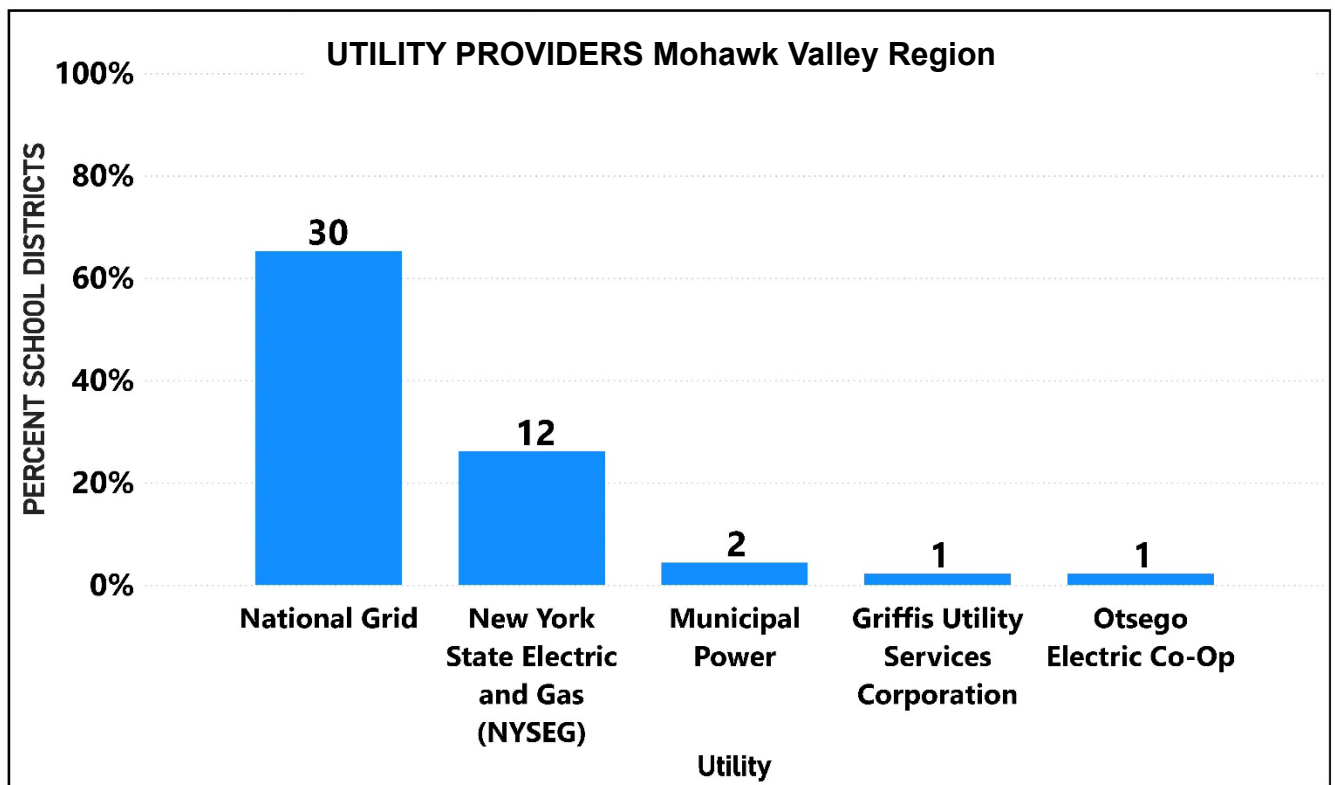
0 15 30 60 Miles

Map created by the NYS Education Department
Data Source: SEDREF and NYSED INFORMATION AND REPORTING SERVICES

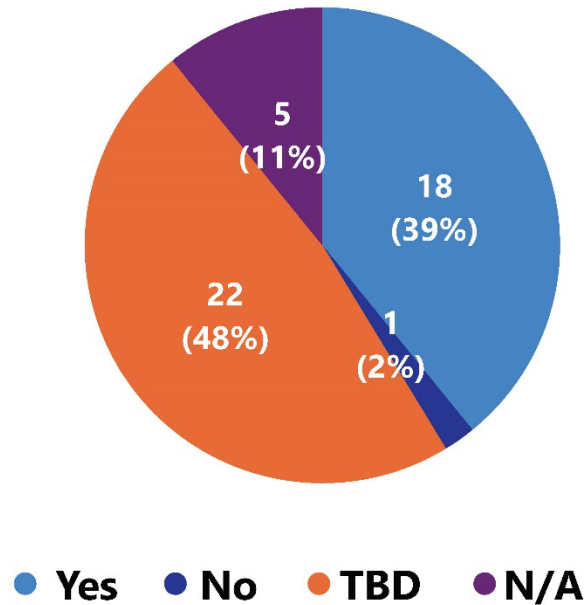
Electric Service

School Districts in the Mohawk Valley Region primarily receive electricity from two (2) major utility companies—NYSEG and National Grid. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, twelve (12) receive electric service from NYSEG, thirty (30) purchase electricity from National Grid, and four (4) report receiving service from a municipal utility or other providers.

In general, districts in the Mohawk Valley report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about one-third of respondents—eighteen (18) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with twenty-two (22) additional districts waiting for a determination to be made. Only one (1) district reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



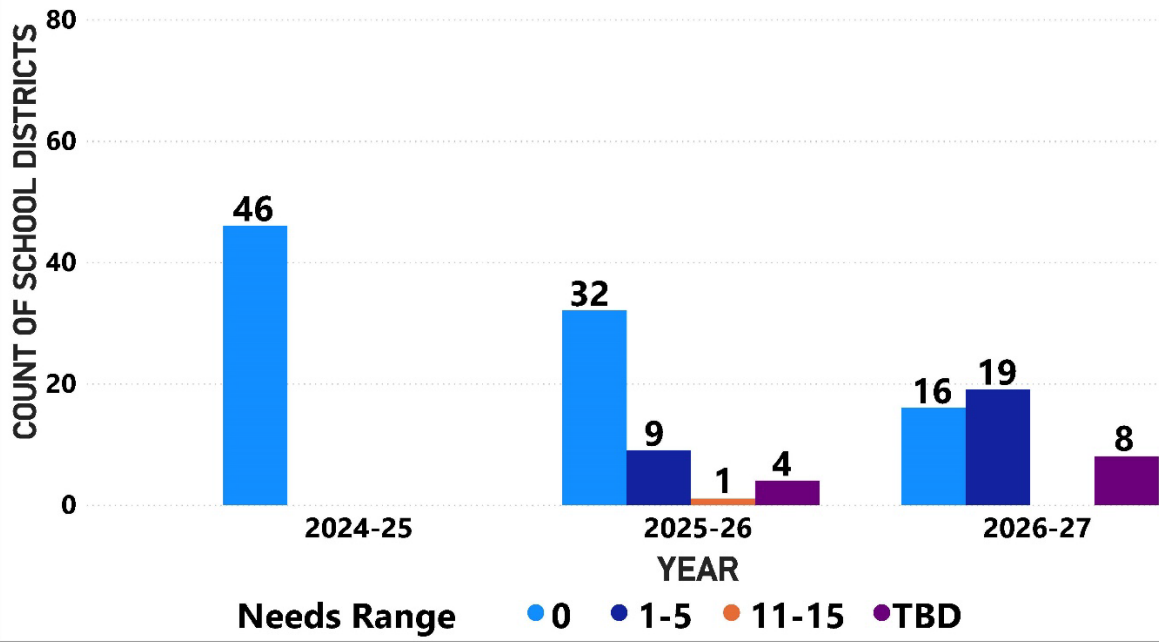
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Mohawk Valley Region



Charging Stations and Infrastructure

All forty-six (46) school districts in the region that responded to the survey report that there are no charging stations available in district, currently. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-three (23) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least thirteen (13) districts anticipate the need to construct new transportation facilities to meet the district's needs.

CURRENT AND ANTICIPATED CHARGING STATIONS Mohawk Valley Region



Capital Region

Regional Summary and Response Rate

The Capital Region Labor Market Region contains eight (8) counties—Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington. Together, there are seventy-four (74) traditional school districts covering an area of approximately 4,814.3 square miles that were responsible for educating 134,898 school-age children in the 2022-23 school year. NYSED received responses from sixty-four (64) school districts, bringing the overall response rate for the region to about eighty-seven percent (87%), with ten (10) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

CAPITAL REGION LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
ALBANY CITY SD	010100	8,640	21.3	Submitted	No Contact	Complete
ARGYLE CSD	640101	493	58.8	Submitted	Applied	Complete
AVERILL PARK CSD	491302	2,605	99.6	Submitted	Applied	
BALLSTON SPA CSD	521301	3,955	59.4	Submitted	Applied	Complete
BERLIN CSD	490101	668	255.0	Not Submitted	Underway	
BERNE-KNOX-WESTERLO CSD	010201	691	120.2	Submitted	Applied	Complete
BETHLEHEM CSD	010306	4,070	44.9	Submitted	No Contact	Complete
BOLTON CSD	630101	181	21.5	Submitted	No Contact	Complete
BRUNSWICK CSD (BRITTONKILL)	490202	1,092	67.5	Submitted	Initial Contact Made	
BURNT HILLS-BALLSTON LAKE CSD	520101	3,100	48.4	Submitted	Underway	Complete
CAIRO-DURHAM CSD	190301	1,069	116.9	Not Submitted	No Contact	
CAMBRIDGE CSD	641610	846	103.8	Submitted	Underway	Complete
CATSKILL CSD	190401	1,277	70.9	Not Submitted	No Contact	
CHATHAM CSD	101001	870	129.0	Submitted	No Contact	
COHOES CITY SD	010500	1,981	3.8	Not Submitted	No Contact	
CORINTH CSD	520401	1,085	78.1	Submitted	Underway	Complete
COXSACKIE-ATHENS CSD	190501	1,165	63.1	Submitted	No Contact	
DUANESBURG CSD	530101	652	57.2	Submitted	Applied	Complete
EAST GREENBUSH CSD	490301	4,113	72.2	Submitted	Initial Contact Made	Complete
EDINBURG COMN SD	520601	52	74.4	Not Submitted	No Contact	Complete
FORT ANN CSD	640502	458	109.2	Submitted	Initial Contact Made	Complete

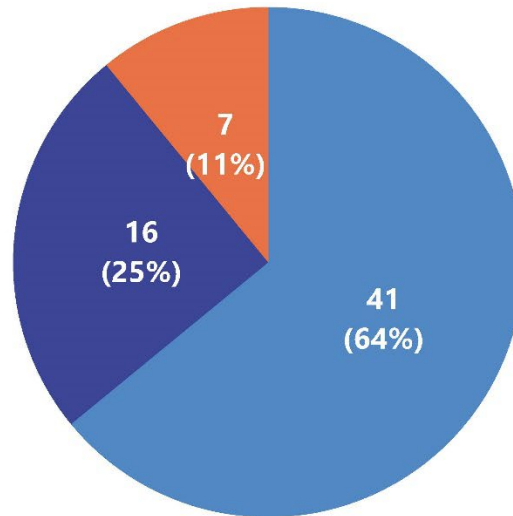
CAPITAL REGION LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
FORT EDWARD UFSD	640601	384	2.3	Submitted	Initial Contact Made	Complete
GALWAY CSD	520701	814	101.0	Submitted	Initial Contact Made	
GERMANTOWN CSD	100902	488	64.3	Submitted	Applied	
GLENS FALLS CITY SD	630300	1,951	4.7	Submitted	No Contact	Complete
GLENS FALLS COMN SD	630918	155	0.8	Submitted	No Contact	
GRANVILLE CSD	640701	1,010	80.4	Submitted	Initial Contact Made	
GREEN ISLAND UFSD	010701	271	0.9	Submitted	Applied	
GREENVILLE CSD	190701	1,097	121.7	Submitted	Applied	
GREENWICH CSD	640801	895	95.6	Submitted	Underway	Complete
GUILDERLAND CSD	010802	4,958	50.0	Submitted	Initial Contact Made	Complete
HADLEY-LUZERNE CSD	630801	644	166.6	Submitted	Applied	Complete
HARTFORD CSD	641001	388	60.6	Submitted	Underway	Complete
HOOSIC VALLEY CSD	491401	887	59.5	Submitted	No Contact	Complete
HOOSICK FALLS CSD	490501	1,054	69.1	Submitted	No Contact	
HUDSON CITY SD	101300	1,566	66.8	Not Submitted	No Contact	
HUDSON FALLS CSD	641301	2,175	54.7	Submitted	Applied	Complete
HUNTER-TANNERSVILLE CSD	190901	339	163.8	Submitted	No Contact	
JOHNSBURG CSD	630601	278	195.8	Submitted	No Contact	
KINDERHOOK CSD	101401	1,717	74.1	Submitted	No Contact	Complete
LAKE GEORGE CSD	630701	630	51.8	Submitted	Underway	Complete
LANSINGBURGH CSD	490601	2,110	12.7	Submitted	No Contact	Complete
MECHANICVILLE CITY SD	521200	1,346	18.4	Submitted	Applied	
MENANDS UFSD	010615	295	3.1	Submitted	No Contact	
NEW LEBANON CSD	101601	413	81.6	Not Submitted	No Contact	
NISKAYUNA CSD	530301	4,314	20.1	Submitted	Initial Contact Made	
NORTH COLONIE CSD	010623	6,072	30.3	Submitted	Underway	Complete
NORTH GREENBUSH COMN SD (WILLIAMS)	490801	31	1.5	Not Submitted		
NORTH WARREN CSD	630202	465	143.6	Submitted	Initial Contact Made	Complete
PUTNAM CSD	641401	47	32.7	Submitted	No Contact	
QUEENSBURY UFSD	630902	3,007	36.7	Submitted	Initial Contact Made	Complete
RAVENA-COEYMANS-SELKIRK CSD	010402	1,801	84.7	Submitted	Applied	Complete
RENSSELAER CITY SD	491200	1,026	3.0	Submitted	No Contact	
ROTTERDAM-MOHONASEN CSD	530515	2,737	8.5	Submitted	Initial Contact Made	Complete
SALEM CSD	641501	557	78.0	Not Submitted	Applied	
SARATOGA SPRINGS CITY SD	521800	6,028	107.0	Submitted	Initial Contact Made	Complete
SCHALMONT CSD	530501	1,810	70.4	Submitted	Applied	Complete
SCHENECTADY CITY SD	530600	9,075	11.3	Submitted	Underway	Complete
SCHODACK CSD	491501	894	31.8	Submitted	Underway	Complete
SCHUYLERVILLE CSD	521701	1,369	75.6	Submitted	No Contact	Complete
SCOTIA-GLENVILLE CSD	530202	2,207	36.0	Submitted	Initial Contact Made	Complete

CAPITAL REGION LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
SHENENDEHOWA CSD	520302	9,521	72.5	Submitted	Initial Contact Made	Complete
SOUTH COLONIE CSD	010601	4,888	21.2	Submitted	Applied	
SOUTH GLENS FALLS CSD	521401	2,909	61.2	Submitted	No Contact	Complete
STILLWATER CSD	522001	1,022	50.2	Submitted	Initial Contact Made	
TACONIC HILLS CSD	100501	1,064	196.2	Submitted	No Contact	
TROY CITY SD	491700	3,759	10.5	Submitted	No Contact	
VOORHEESVILLE CSD	011003	1,247	38.8	Submitted	Complete	Complete
WARRENSBURG CSD	631201	663	88.6	Submitted	Underway	Complete
WATERFORD-HALFMOON UFSD	522101	734	6.8	Not Submitted	Initial Contact Made	
WATERVLIET CITY SD	011200	1,422	2.2	Submitted	Underway	
WHITEHALL CSD	641701	673	121.2	Submitted	Applied	Complete
WINDHAM-ASHLAND-JEWETT CSD	191401	295	94.8	Submitted	No Contact	
WYNANTSKILL UFSD	490804	333	3.3	Submitted	No Contact	

Transportation Means

About two-thirds of school districts in the Capital Region own and operate buses. Forty-one (41) districts, or 64% of respondents, currently own and operate all school buses serving districts' needs; seven (7, 11%) districts indicate that all transportation services are contracted out; and sixteen (16, 25%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.

TRANSPORTATION MEANS – Capital Region



Means ● Own/Operate ● Mix ● Contract all

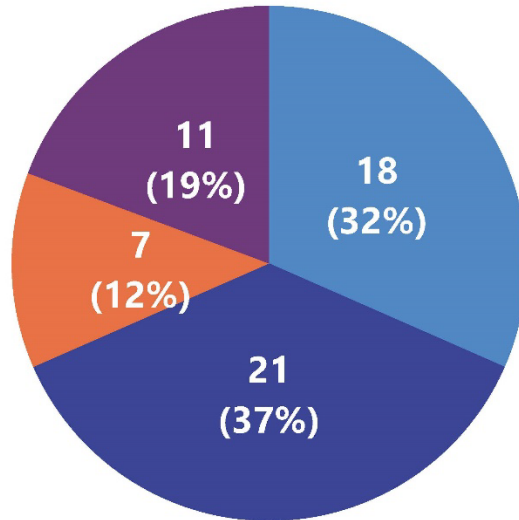
Bus Fleets

Fifty-seven (57) school districts in the Capital Region provided NYSED with information on their current bus fleet and anticipated future needs. Eighteen (18) districts maintain between 1 and 20 buses; twenty-one (21) districts own between 21 and 40 buses; seven (7) districts maintain a fleet of between 41 and 60 buses; and eleven (11) districts own between 41 and 60 buses. Of these reported fleets, fifty-five (55) school districts reported that no zero emission buses are currently owned. Two (2) districts, however, do currently maintain zero emission buses at this time:

- Bethlehem currently operates seven (7) zero emission buses out of a fleet of one hundred-four buses (104, 6.7%)
- Burnt Hills-Ballston Lake currently operates two (2) zero emission buses out of a fleet of seventy-five buses (75, 2.7%)

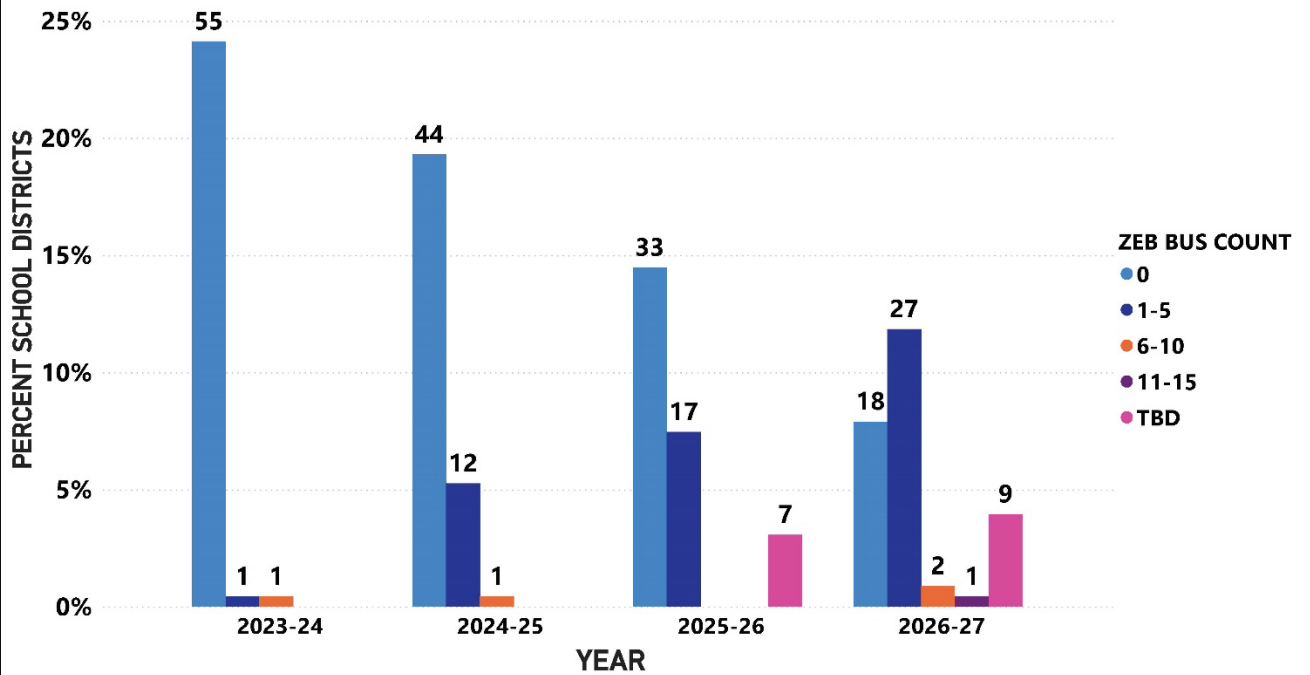
Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

CURRENT FLEET SIZE – Capital Region

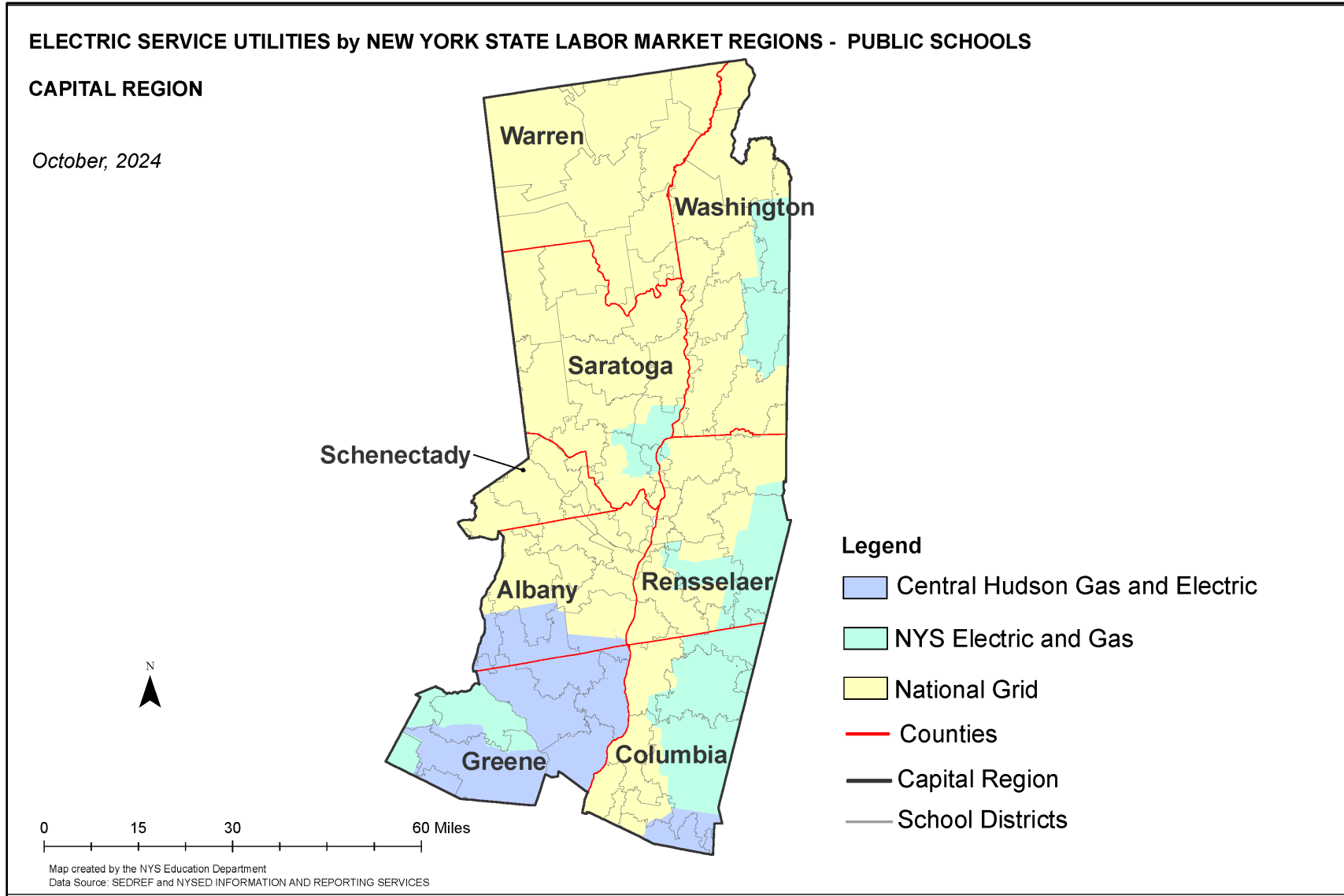


Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+

**CURRENT AND ANTICIPATED ZERO EMISSION BUSES
Capital Region**



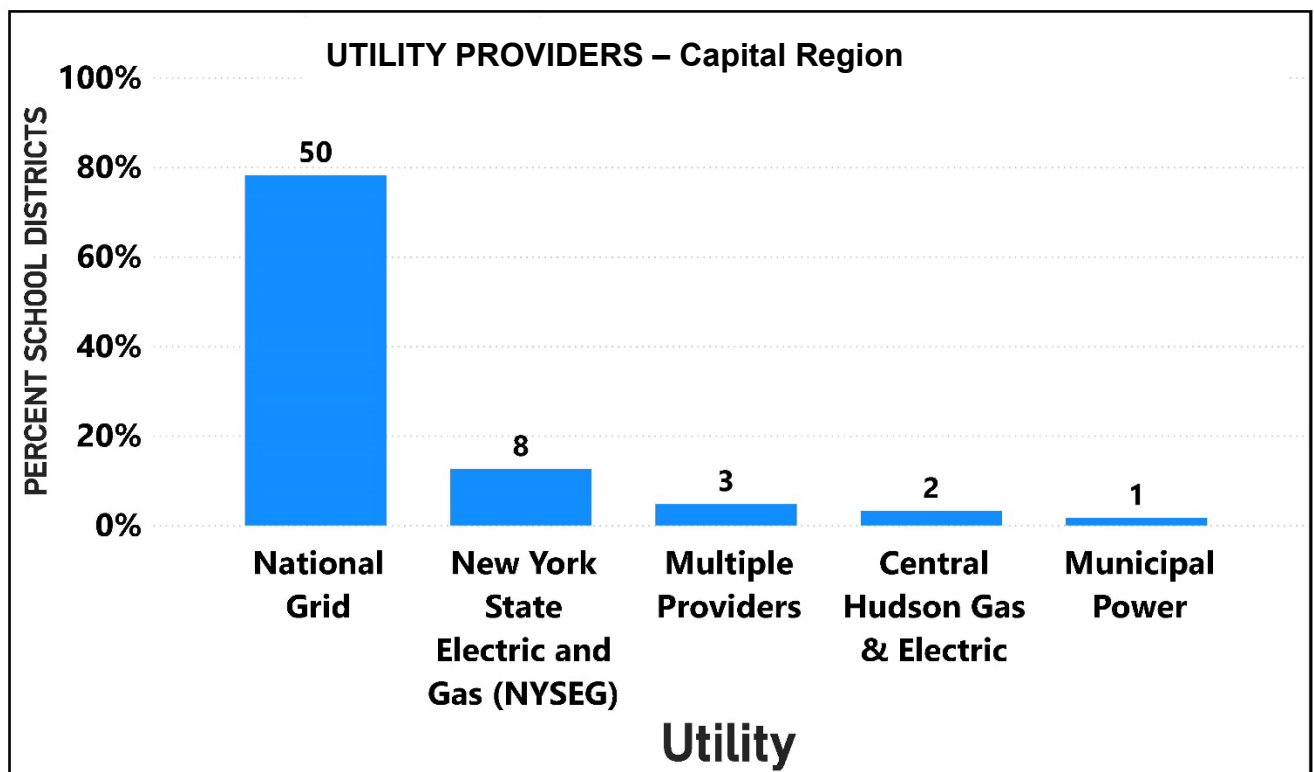
Infrastructure Assessment



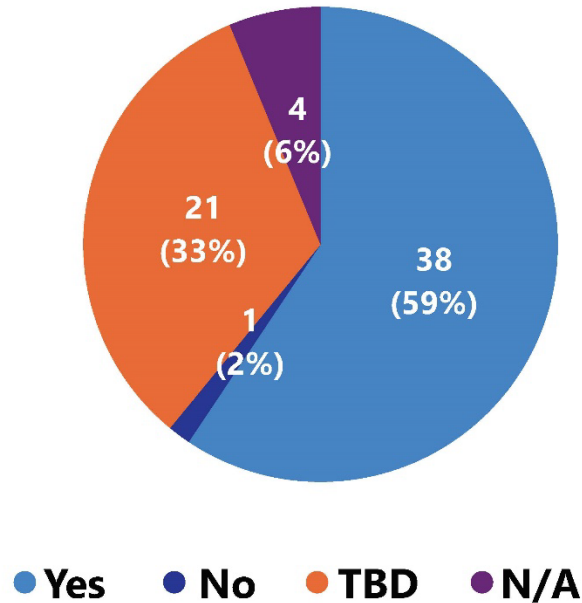
Electric Service

School Districts in the Capital Region primarily receive electricity from three (3) major utility companies—NYSEG, Central Hudson Gas and Electric, and National Grid. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, eight (8) receive electric service from NYSEG, fifty (50) purchase electricity from National Grid, two (2) are under Central Hudson Gas and Electric, and four (4) report receiving service from a municipal utility or other providers.

In general, districts in the Capital Region report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, over half of respondents—thirty-eight (38) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with twenty-one (21) additional districts waiting for a determination to be made. Only one (1) district reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



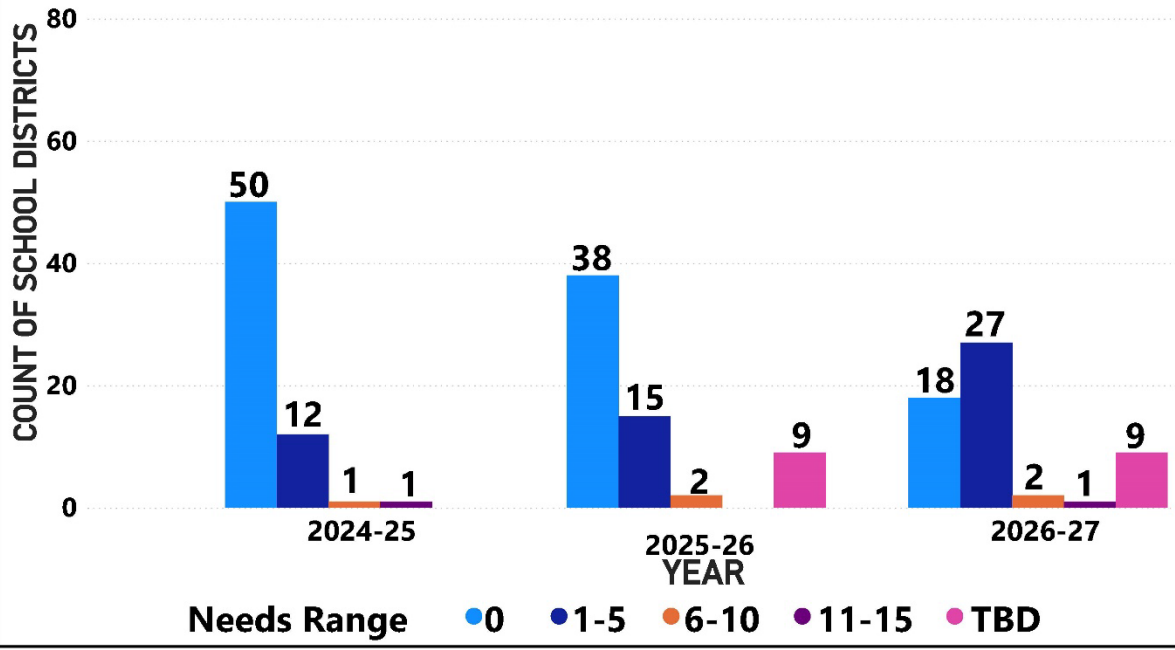
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Capital Region



Charging Stations and Infrastructure

Fifty (50) school districts in the region that responded to the survey report that there are no charging stations available in district, currently. However, there are twelve (14) school districts that either have some charging stations ready for use or anticipate that chargers will be installed during the 2024-25 school year. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-eight (28) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least thirteen (13) districts anticipate that extensive renovations and capital investment is needed, with at least ten (10) districts projecting that entirely new transportation facilities are necessary to meet the district's needs.

**CURRENT AND ANTICIPATED CHARGING STATIONS
Capital Region**



Hudson Valley Region

Regional Summary and Response Rate

The Hudson Valley Labor Market Region contains seven (7) counties—Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester. Together, there are one hundred-one (101) traditional school districts covering an area of approximately 4,633.5 square miles that were responsible for educating 318,558 school-age children in the 2022-23 school year. NYSED received responses from eighty-one (81) school districts, bringing the overall response rate for the region to about eighty percent (80%), with twenty (20) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

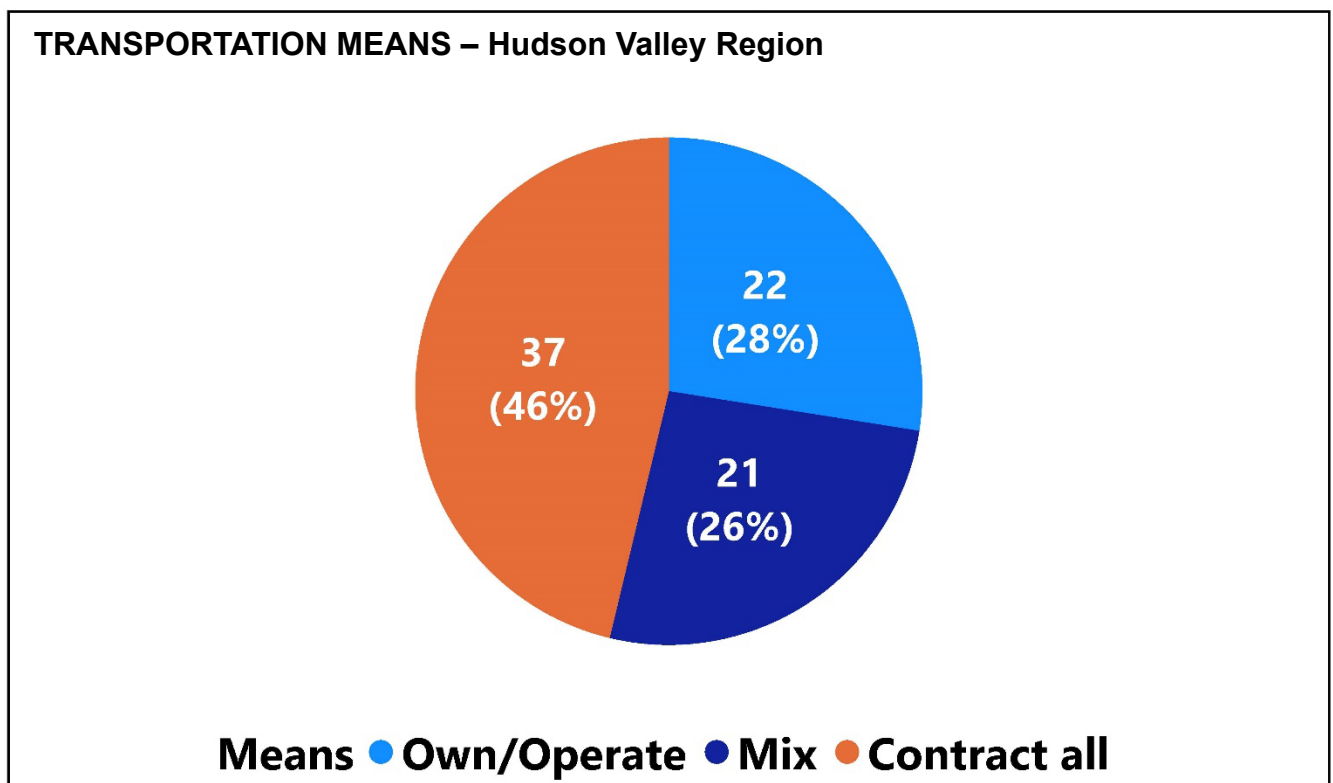
HUDSON VALLEY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
ARDSLEY UFSD	660405	2,300	4.2	Submitted	No Contact	
ARLINGTON CSD	131601	7,855	115.4	Submitted	Initial Contact Made	
BEACON CITY SD	130200	2,578	26.1	Not Submitted	No Contact	
BEDFORD CSD	660102	3,609	53.7	Not Submitted	Initial Contact Made	
BLIND BROOK-RYE UFSD	661905	1,289	3.3	Submitted	No Contact	
BREWSTER CSD	480601	2,927	39.9	Submitted	Applied	
BRIARCLIFF MANOR UFSD	661402	1,346	8.7	Submitted	Applied	
BRONXVILLE UFSD	660303	1,566	1.2	Not Submitted	No Contact	
BYRAM HILLS CSD	661201	2,299	20.9	Submitted	Initial Contact Made	
CARMEL CSD	480102	3,740	79.4	Submitted	Initial Contact Made	
CHAPPAQUA CSD	661004	3,545	20.3	Submitted	Initial Contact Made	
CHESTER UFSD	440201	957	10.9	Submitted	No Contact	
CLARKSTOWN CSD	500101	7,967	28.5	Not Submitted	No Contact	
CORNWALL CSD	440301	3,024	38.3	Submitted	No Contact	
CROTON-HARMON UFSD	660202	1,575	13.5	Submitted	Initial Contact Made	
DOBBS FERRY UFSD	660403	1,514	2.1	Submitted	No Contact	
DOVER UFSD	130502	1,345	62.4	Submitted	No Contact	
EAST RAMAPO CSD (SPRING VALLEY)	500402	11,880	31.8	Not Submitted	No Contact	
EASTCHESTER UFSD	660301	3,033	4.2	Submitted	No Contact	
EDGEMONT UFS-GREENBURGH	660406	1,930	2.8	Submitted	No Contact	

HUDSON VALLEY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
ELDRED CSD	590801	472	97.4	Submitted	No Contact	
ELLENVILLE CSD	622002	1,406	122.6	Submitted	No Contact	
ELMSFORD UFSD	660409	1,040	1.9	Not Submitted	No Contact	
FALLSBURG CSD	590501	1,499	36.5	Submitted	No Contact	
FLORIDA UFSD	442115	709	23.8	Submitted	No Contact	
GARRISON UFSD	480404	225	22.1	Not Submitted	Initial Contact Made	
GOSHEN CSD	440601	2,856	81.1	Submitted	Applied	
GREENBURGH CSD	660407	1,655	6.3	Not Submitted	No Contact	
GREENWOOD LAKE UFSD	442111	431	13.9	Submitted	Initial Contact Made	
HALDANE CSD	480401	803	38.5	Submitted	Initial Contact Made	
HARRISON CSD	660501	3,624	17.3	Submitted	No Contact	
HASTINGS-ON-HUDSON UFSD	660404	1,611	1.8	Submitted	No Contact	
HAVERSTRAW-STONY POINT CSD (NORTH RO	500201	8,042	61.2	Submitted	No Contact	
HENDRICK HUDSON CSD	660203	2,243	14.3	Submitted	Initial Contact Made	
HIGHLAND CSD	620803	1,528	47.0	Submitted	No Contact	
HIGHLAND FALLS CSD	440901	949	25.3	Not Submitted	No Contact	
HYDE PARK CSD	130801	3,457	69.9	Submitted	Underway	
IRVINGTON UFSD	660402	1,753	4.9	Submitted	No Contact	
KATONAH-LEWISBORO UFSD	660101	2,816	42.7	Submitted	Applied	
KINGSTON CITY SD	620600	6,143	103.0	Not Submitted	No Contact	
KIRYAS JOEL VILLAGE UFSD	441202	546	4.5	Submitted	No Contact	
LAKELAND CSD	662401	5,370	24.9	Submitted	Underway	
LIBERTY CSD	590901	1,816	82.0	Submitted	No Contact	
LIVINGSTON MANOR CSD	591302	406	131.1	Submitted	No Contact	
MAHOPAC CSD	480101	3,809	31.2	Submitted	Initial Contact Made	
MAMARONECK UFSD	660701	5,538	5.8	Submitted	No Contact	
MARLBORO CSD	621001	1,864	51.2	Submitted	No Contact	
MIDDLETOWN CITY SD	441000	7,560	26.5	Submitted	No Contact	
MILLBROOK CSD	132201	834	79.8	Submitted	No Contact	
MINISINK VALLEY CSD	441101	3,596	115.0	Submitted	No Contact	Underway
MONROE-WOODBURY CSD	441201	6,534	64.4	Submitted	No Contact	
MONTICELLO CSD	591401	2,783	190.1	Submitted	No Contact	
MT PLEASANT CSD	660801	1,918	9.2	Submitted	No Contact	
MT VERNON CITY SD	660900	6,967	4.1	Submitted	No Contact	Complete
NANUET UFSD	500108	2,227	5.2	Submitted	No Contact	
NEW PALTZ CSD	621101	1,776	78.5	Submitted	Complete	
NEW ROCHELLE CITY SD	661100	10,106	11.3	Submitted	No Contact	
NEWBURGH CITY SD	441600	11,052	33.1	Not Submitted	No Contact	
NORTH SALEM CSD	661301	985	32.1	Submitted	Initial Contact Made	
NORTHEAST CSD	131101	642	79.2	Submitted	No Contact	

HUDSON VALLEY LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
NYACK UFSD	500304	2,811	8.2	Not Submitted	Initial Contact Made	
ONTEORA CSD	621201	1,130	314.1	Submitted	Complete	
OSSINING UFSD	661401	4,952	10.9	Submitted	Applied	
PAWLING CSD	131201	1,087	51.5	Submitted	Underway	In process
PEARL RIVER UFSD	500308	2,270	13.3	Not Submitted	No Contact	
PEEKSKILL CITY SD	661500	3,599	3.1	Submitted	Initial Contact Made	
PELHAM UFSD	661601	2,756	2.3	Submitted	No Contact	
PINE BUSH CSD	440401	4,769	107.8	Submitted	No Contact	
PINE PLAINS CSD	131301	826	139.5	Submitted	No Contact	
PLEASANTVILLE UFSD	660809	1,629	2.3	Not Submitted	No Contact	
POCANTICO HILLS CSD	660802	320	8.6	Submitted	No Contact	
PORT CHESTER-RYE UFSD	661904	4,726	4.0	Submitted	No Contact	
PORT JERVIS CITY SD	441800	2,373	71.4	Submitted	No Contact	
POUGHKEEPSIE CITY SD	131500	3,892	6.0	Submitted	Underway	
PUTNAM VALLEY CSD	480503	1,544	31.2	Submitted	Initial Contact Made	
RED HOOK CSD	131701	1,586	63.5	Submitted	Complete	
RHINEBECK CSD	131801	937	60.8	Not Submitted	No Contact	
RONDOUT VALLEY CSD	620901	1,730	121.4	Submitted	Complete	
ROSCOE CSD	591301	224	108.7	Submitted	No Contact	
RYE CITY SD	661800	2,852	3.1	Not Submitted	No Contact	
RYE NECK UFSD	661901	1,532	2.6	Not Submitted	No Contact	
SAUGERTIES CSD	621601	2,319	50.8	Submitted	No Contact	
SCARSDALE UFSD	662001	4,676	20.9	Submitted	No Contact	
SOMERS CSD	662101	2,643	29.0	Submitted	Initial Contact Made	
SOUTH ORANGETOWN CSD	500301	2,892	18.1	Not Submitted	Applied	
SPACKENKILL UFSD	131602	1,569	6.4	Submitted	Underway	
SUFFERN CSD	500401	3,930	44.0	Not Submitted	No Contact	
SULLIVAN WEST CSD	591502	1,047	255.4	Submitted	No Contact	
TRI-VALLEY CSD	591201	897	189.0	Not Submitted	No Contact	
TUCKAHOE UFSD	660302	1,130	0.7	Submitted	No Contact	
TUXEDO UFSD	441903	208	17.8	Submitted	No Contact	
UFSD - TARRYTOWNS	660401	2,703	2.9	Submitted	Underway	
VALHALLA UNION FREE SCHOOL	660805	1,357	4.8	Submitted	No Contact	
VALLEY CSD (MONTGOMERY)	441301	4,246	78.8	Submitted	No Contact	Complete
WALLKILL CSD	621801	2,743	55.3	Submitted	No Contact	
WAPPINGERS CSD	132101	10,421	87.7	Submitted	Applied	
WARWICK VALLEY CSD	442101	3,820	65.0	Submitted	Underway	
WASHINGTONVILLE CSD	440102	3,919	59.0	Submitted	No Contact	
WHITE PLAINS CITY SD	662200	6,955	9.9	Submitted	Initial Contact Made	
YONKERS CITY SD	662300	24,242	17.7	Submitted		
YORKTOWN CSD	662402	3,426	27.7	Submitted	Applied	

Transportation Means

About one-quarter of school districts in the Hudson Valley Region own and operate buses. Twenty-two (22) districts, or 27% of respondents, currently own and operate all school buses serving districts' needs; thirty-eight (38, 47%) districts indicate that all transportation services are contracted out; and twenty-one (21, 26%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.



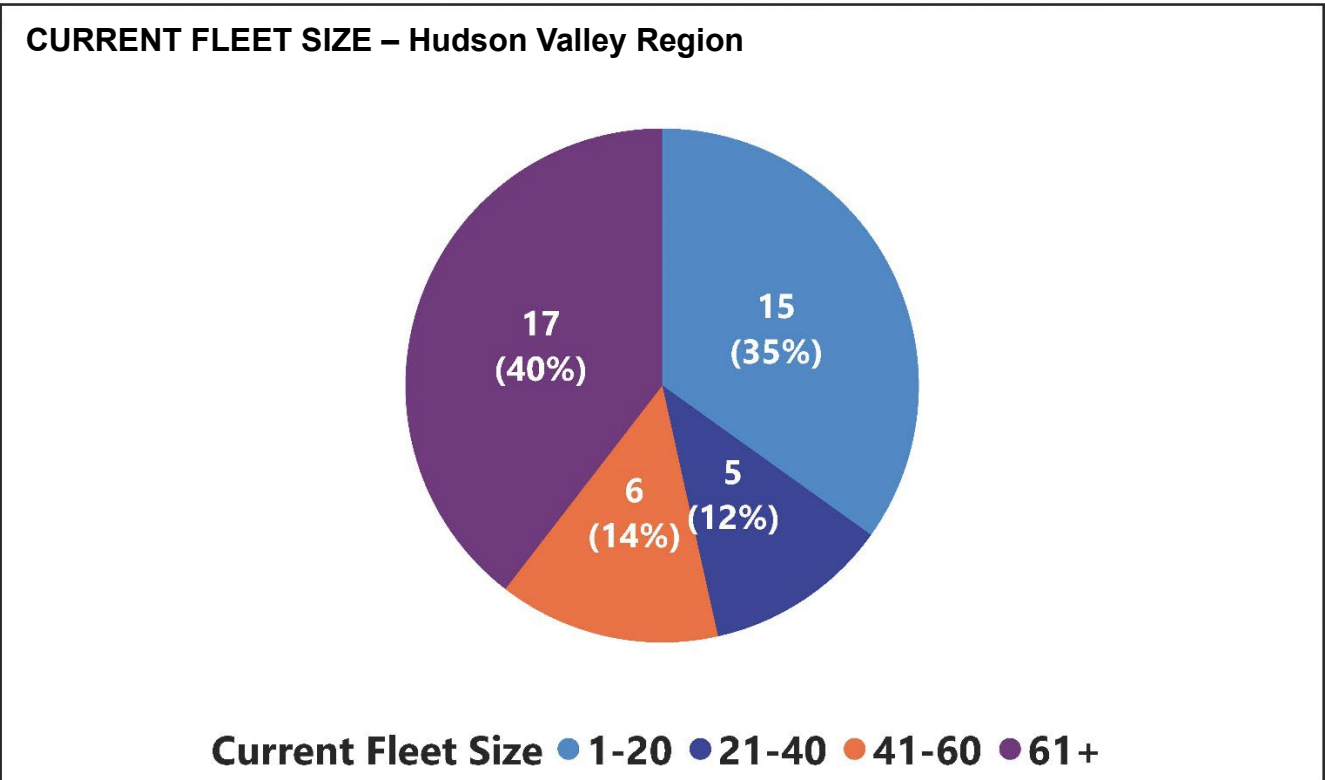
Bus Fleets

Forty-three (43) school districts in the Hudson Valley Region provided NYSED with information on their current bus fleet and anticipated future needs. Fifteen (15) districts maintain between 1 and 20 buses; five (5) districts own between 21 and 40 buses; six (6) districts maintain a fleet of between 41 and 60 buses; and seventeen (17) districts own between 41 and 60 buses. Of these reported fleets, thirty-nine (39) school districts

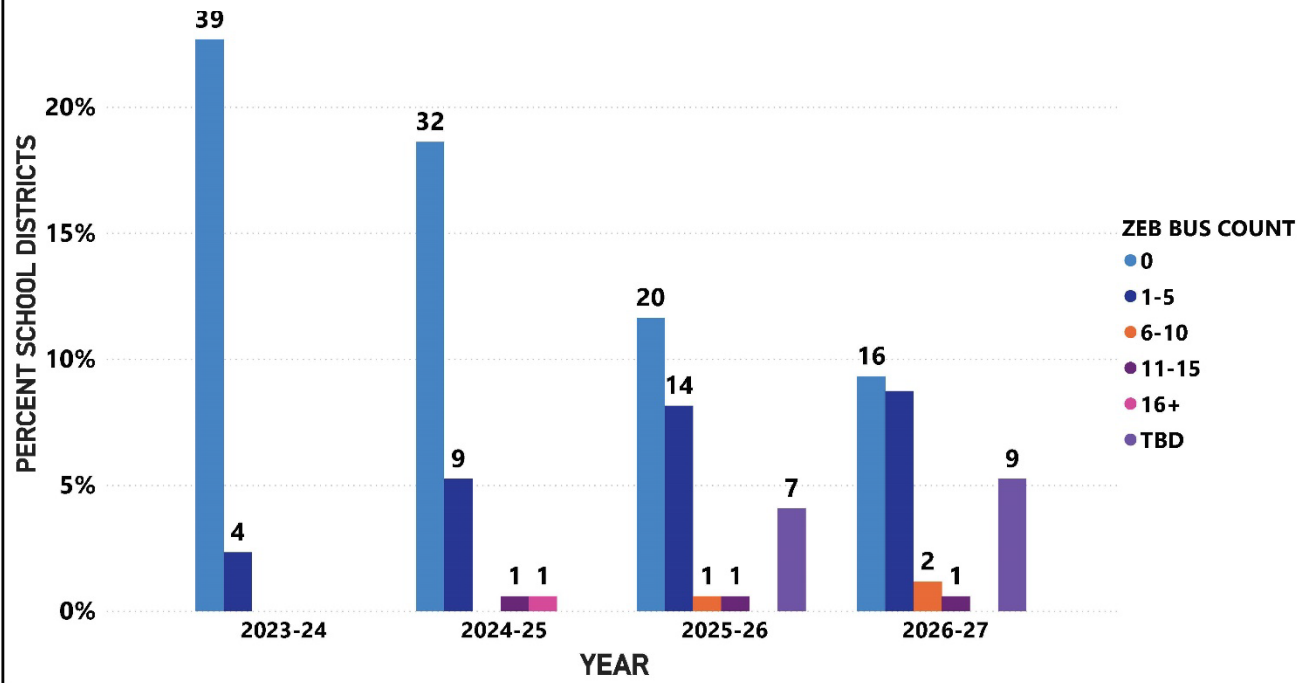
reported that no zero emission buses are currently owned. Four (4) districts, however, do currently maintain zero emission buses at this time:

- Croton-Harmon currently operates five (5) zero emission buses out of a fleet of forty-two (42) buses (11.9%)
- Katonah-Lewisboro currently operates two (1) zero emission bus out of a fleet of ninety (90) buses (1.1%)
- Monticello currently operates one (1) zero-emission bus out of a fleet of sixty-five (65) buses (1.5%)
- UFSD of the Tarrytowns currently operates one (1) zero-emission bus out of a fleet of fifty-five (55) buses (1.8%)

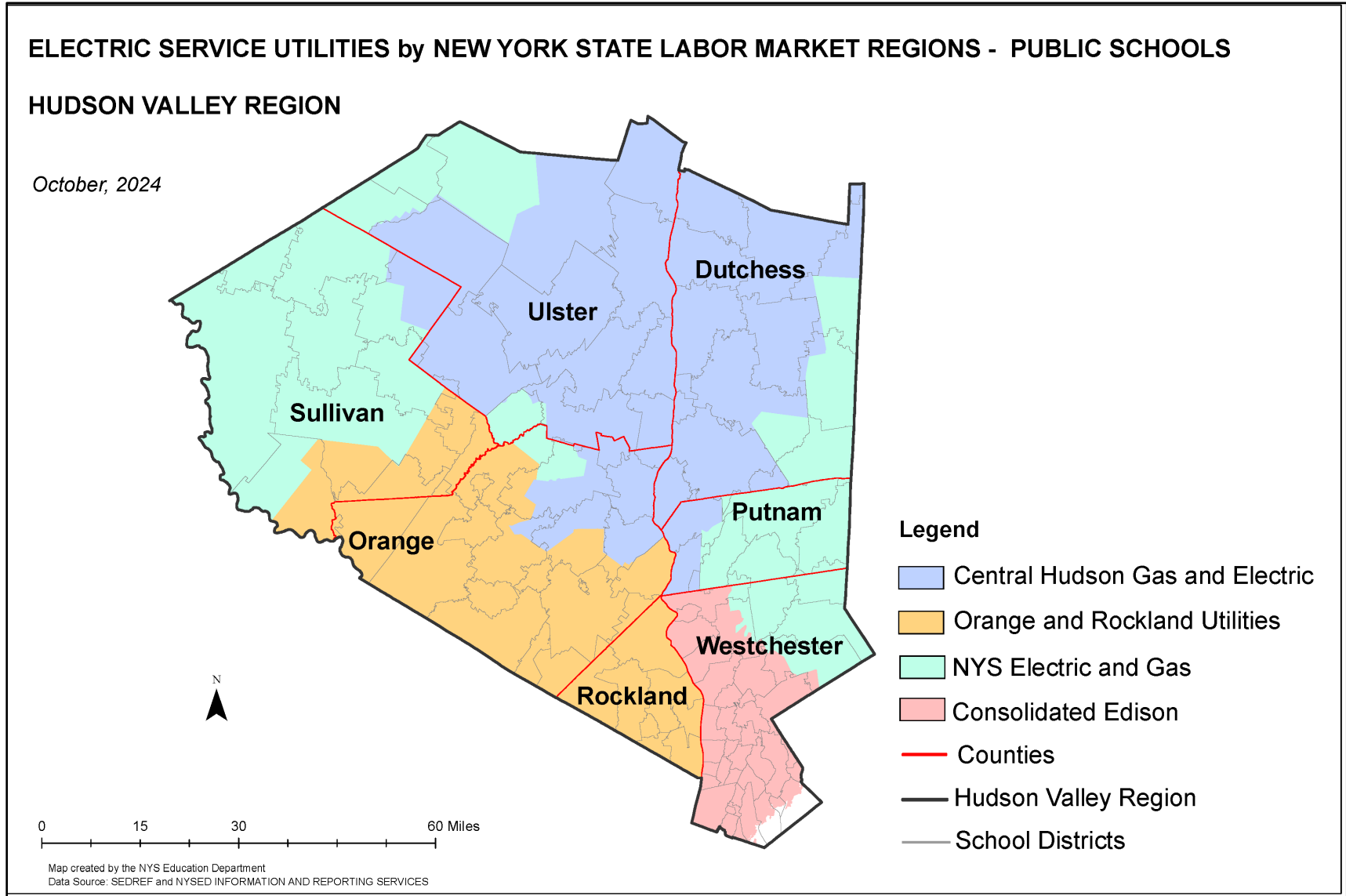
Regionally, districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.



CURRENT AND ANTICIPATED ZERO EMISSION BUSES Hudson Valley Region



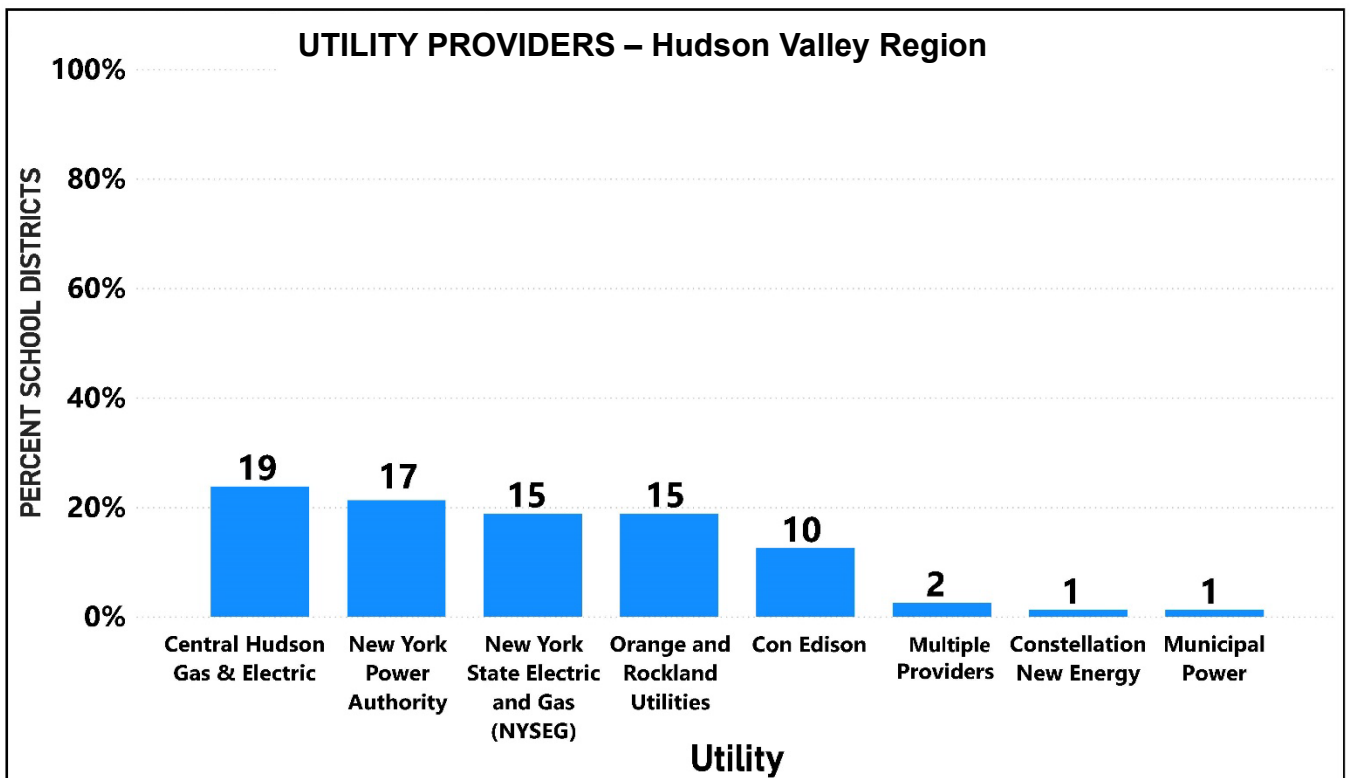
Infrastructure Assessment



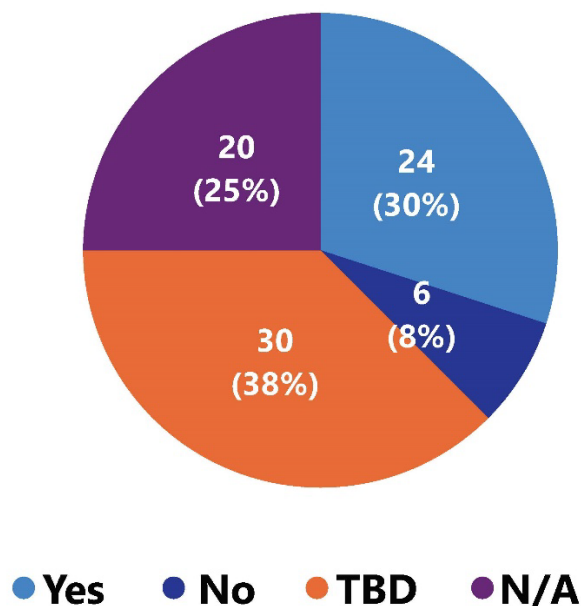
Electric Service

School Districts in the Hudson Valley Region primarily receive electricity from five (5) major utility companies—NYSEG, Central Hudson Gas and Electric, ConEd, NYPA, and Orange and Rockland Utilities. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, fifteen (15) receive electric service from NYSEG, ten (10) purchase electricity from ConEd, nineteen (19) are under Central Hudson Gas and Electric, eighteen (18) are served by NYPA, fifteen (15) are Orange and Rockland Utilities customers, and four (4) report receiving service from a municipal utility or other providers.

In general, districts in the Hudson Valley Region report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about one-third of respondents—twenty-four (24) districts—anticipate that service capacity will need to be enhanced in order to support a fully electric bus fleet, with thirty (30) additional districts waiting for a determination to be made. Six (6) districts reported that no service enhancements are necessary to meet the demands of an electric bus fleet at this time.



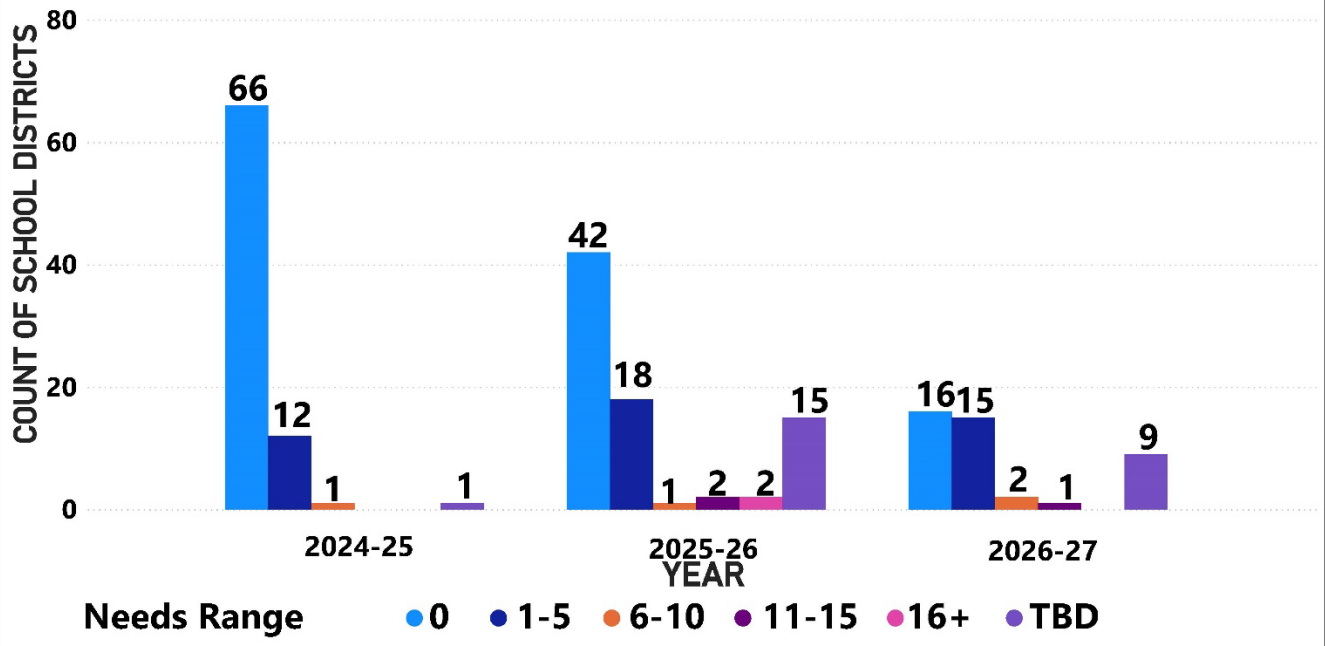
ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Hudson Valley Region



Charging Stations and Infrastructure

Sixty-six (66) school districts in the region that responded to the survey report that there are no charging stations available in district, currently. However, there are twelve (14) school districts that either have some charging stations ready for use or anticipate that chargers will be installed during the 2024-25 school year. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least twenty-seven (27) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts and needing to wait until formal fleet electrification plans are completed. Additionally, at least eight (27) districts anticipate that extensive renovations and capital investment is needed, including the need to acquire additional land to construct entirely new transportation facilities are necessary to meet the districts' needs.

**CURRENT AND ANTICIPATED CHARGING STATIONS
Hudson Valley Region**



Long Island Region

Regional Summary and Response Rate

The Long Island Labor Market Region contains two (2) counties—Nassau and Suffolk. Together, there are one hundred twenty-four (124) traditional school districts covering an area of approximately 1,462.7 square miles that were responsible for educating 421,990 school-age children in the 2022-23 school year. NYSED received responses from one hundred-two (102) school districts, bringing the overall response rate for the region to about eighty-two percent (82%), with twenty-two (22) non-responsive districts. The table below shows all districts surveyed, whether a response was provided, the reported 2022-23 enrollment count, area in square miles, and the status of a NYSERDA Fleet Electrification Plan (“FEP”) and/or Utility Fleet Assessment (“FAS”), if commissioned:

LONG ISLAND LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
AMAGANSETT UFSD	580303	125	49.5	Submitted	No Contact	
AMITYVILLE UFSD	580106	2,869	5.2	Submitted	No Contact	
BABYLON UFSD	580101	1,581	3.3	Submitted	No Contact	
BALDWIN UFSD	280210	4,461	4.8	Not Submitted	No Contact	
BAY SHORE UFSD	580501	5,892	6.3	Submitted	No Contact	
BAYPORT-BLUE POINT UFSD	580505	1,904	6.0	Submitted	No Contact	
BELLMORE UFSD	280207	1,088	4.4	Submitted	No Contact	
BELLMORE-MERRICK CENTRAL HS DISTRICT	280253	5,200	14.0	Submitted	Applied	
BETHPAGE UFSD	280521	3,007	3.8	Not Submitted	No Contact	
BRENTWOOD UFSD	580512	18,557	14.9	Submitted	No Contact	
BRIDGEHAMPTON UFSD	580909	198	14.1	Submitted	No Contact	
BROOKHAVEN-COMSEWOGUE UFSD	580203	3,635	9.0	Submitted	No Contact	
CARLE PLACE UFSD	280411	1,276	2.0	Submitted	No Contact	
CENTRAL ISLIP UFSD	580513	7,809	7.6	Not Submitted	No Contact	
COLD SPRING HARBOR CSD	580402	1,568	13.0	Not Submitted	No Contact	
COMMACK UFSD	580410	5,765	12.6	Submitted	No Contact	
CONNETQUOT CSD	580507	5,475	6.5	Submitted	No Contact	
COPIAGUE UFSD	580105	4,801	6.5	Submitted	No Contact	
CTR MORICHES UFSD	580233	1,547	20.9	Submitted	No Contact	
DEER PARK UNION FREE SCHOOL	580107	3,995	5.8	Submitted	Underway	
EAST HAMPTON UFSD	580301	1,828	39.3	Submitted	Applied	
EAST ISLIP UFSD	580503	3,529	14.3	Submitted	No Contact	
EAST MEADOW UFSD	280203	7,862	7.8	Not Submitted	No Contact	
EAST MORICHES UFSD	580234	696	16.4	Submitted	No Contact	

LONG ISLAND LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
EAST QUOGUE UFSD	580917	379	10.2	Submitted	No Contact	
EAST ROCKAWAY UFSD	280219	1,186	1.5	Submitted	No Contact	
EAST WILLISTON UFSD	280402	1,594	4.1	Submitted	Applied	
EASTPORT-SOUTH MANOR CSD	580912	2,849	41.7	Submitted	No Contact	
ELMONT UFSD	280216	3,359	4.2	Not Submitted	No Contact	
ELWOOD UFSD	580401	2,016	24.9	Submitted	No Contact	
FARMINGDALE UFSD	280522	5,308	8.8	Submitted	No Contact	
FIRE ISLAND UFSD	580514	34	0.4	Not Submitted	No Contact	
FISHERS ISLAND UFSD	581004	57	31.7	Not Submitted	No Contact	
FLORAL PARK-BELLEROSE UFSD	280222	1,616	1.5	Submitted	No Contact	
FRANKLIN SQUARE UFSD	280217	1,931	1.6	Submitted	No Contact	
FREEPORT UFSD	280209	6,606	6.6	Not Submitted	No Contact	
GARDEN CITY UFSD	280218	3,958	5.0	Submitted	No Contact	
GLEN COVE CITY SD	280100	3,134	6.9	Submitted	No Contact	
GREAT NECK UFSD	280407	6,818	14.3	Submitted	No Contact	
GREENPORT UFSD	581010	694	5.4	Submitted	No Contact	
HALF HOLLOW HILLS CSD	580405	7,463	31.2	Submitted	Applied	
HAMPTON BAYS UFSD	580905	2,084	20.3	Submitted	No Contact	
HARBORFIELDS CSD	580406	2,831	5.6	Submitted	No Contact	
HAUPPAUGE UFSD	580506	3,275	10.2	Not Submitted	No Contact	
HEMPSTEAD UFSD	280201	5,710	3.4	Submitted	No Contact	
HERRICKS UFSD	280409	4,386	4.2	Submitted	No Contact	
HEWLETT-WOODMERE UFSD	280214	2,896	4.1	Submitted	No Contact	
HICKSVILLE UFSD	280517	5,485	6.9	Submitted	No Contact	
HUNTINGTON UFSD	580403	4,217	13.0	Submitted	No Contact	
ISLAND PARK UFSD	280231	686	1.9	Submitted	No Contact	
ISLAND TREES UFSD	280226	2,251	2.0	Submitted	No Contact	
ISLIP UFSD	580502	2,725	6.0	Submitted	No Contact	
JERICO UFSD	280515	3,279	12.9	Submitted	Underway	
KINGS PARK CSD	580805	2,665	14.5	Submitted	Initial Contact Made	
LAWRENCE UFSD	280215	2,419	11.1	Not Submitted	No Contact	
LEVITTOWN UFSD	280205	7,336	5.3	Submitted	No Contact	
LINDENHURST UFSD	580104	5,742	6.8	Submitted	No Contact	
LOCUST VALLEY CSD	280503	1,898	14.1	Submitted	No Contact	
LONG BEACH CITY SD	280300	3,543	4.8	Not Submitted	Applied	
LONGWOOD CSD	580212	9,001	50.8	Submitted	No Contact	
LYNBROOK UFSD	280220	2,836	1.7	Not Submitted	No Contact	
MALVERNE UFSD	280212	1,797	2.2	Submitted	No Contact	
MANHASSET UFSD	280406	2,996	4.7	Not Submitted	No Contact	
MASSAPEQUA UFSD	280523	6,477	19.5	Submitted	No Contact	
MATTITUCK-CUTCHOUE UFSD	581012	1,029	24.0	Submitted	No Contact	
MERRICK UFSD	280225	1,670	4.2	Submitted	No Contact	
MIDDLE COUNTRY CSD	580211	9,424	15.6	Submitted	No Contact	
MILLER PLACE UFSD	580208	2,367	13.7	Submitted	No Contact	
MINEOLA UFSD	280410	2,936	2.2	Submitted	No Contact	

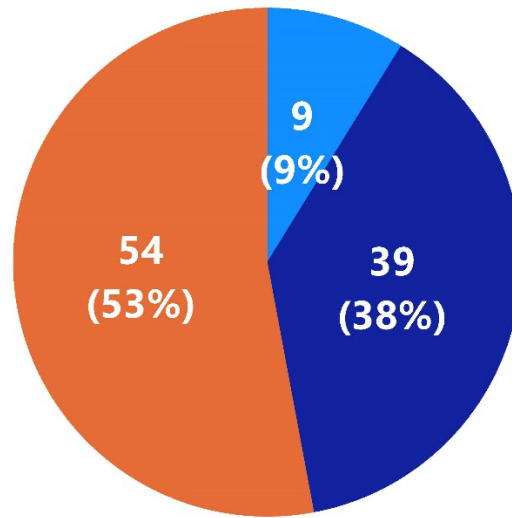
LONG ISLAND LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
MONTAUK UFSD	580306	303	16.6	Submitted	No Contact	
MT SINAI UFSD	580207	2,100	7.5	Submitted	No Contact	
NEW HYDE PARK-GARDEN CITY PARK UFSD	280405	1,648	1.6	Not Submitted	No Contact	
NEW SUFFOLK COMN SD	581015	7	1.6	Not Submitted		
NORTH BABYLON UFSD	580103	4,583	5.4	Submitted	No Contact	
NORTH BELLMORE UFSD	280204	2,193	3.2	Submitted	No Contact	
NORTH MERRICK UFSD	280229	1,285	2.2	Submitted	No Contact	
NORTH SHORE CSD	280501	2,551	6.7	Submitted	No Contact	
NORTHPORT-EAST NORTHPORT UFSD	580404	4,679	14.8	Submitted	Applied	
OCEANSIDE UFSD	280211	5,479	6.5	Submitted	No Contact	
OYSTER BAY-EAST NORWICH CSD	280506	1,391	13.4	Submitted	No Contact	
OYSTERPONDS UFSD	581002	83	12.0	Submitted	No Contact	
PATCHOGUE-MEDFORD UFSD	580224	7,623	27.7	Submitted	No Contact	
PLAINEDGE UFSD	280518	2,881	3.0	Submitted	No Contact	
PLAINVIEW-OLD BETHPAGE CSD	280504	5,363	12.1	Submitted	No Contact	
PORT JEFFERSON UFSD	580206	910	7.4	Submitted	No Contact	
PORT WASHINGTON UFSD	280404	5,350	13.0	Not Submitted	No Contact	
QUOGUE UFSD	580903	85	6.0	Submitted	No Contact	
REMSENBURG-SPEONK UFSD	580901	137	7.6	Submitted	No Contact	
RIVERHEAD CSD	580602	5,738	68.6	Submitted	No Contact	
ROCKVILLE CENTRE UFSD	280221	3,445	3.1	Submitted	No Contact	
ROCKY POINT UFSD	580209	2,768	9.1	Submitted	No Contact	
ROOSEVELT UFSD	280208	3,092	1.6	Submitted	No Contact	
ROSLYN UFSD	280403	3,295	5.3	Submitted	No Contact	
SACHEM CSD	580205	12,052	24.5	Submitted	Applied	
SAG HARBOR UFSD	580305	955	22.3	Submitted	Applied	
SAGAPONACK COMN SD	580910	5	8.8	Submitted		
SAYVILLE UFSD	580504	2,680	6.3	Submitted	No Contact	
SEAFORD UFSD	280206	2,181	3.5	Not Submitted	No Contact	
SEWANHAKA CENTRAL HS DISTRICT	280252	7,770	8.8	Not Submitted	No Contact	
SHELTER ISLAND UFSD	580701	174	26.1	Submitted	No Contact	
SHOREHAM-WADING RIVER CSD	580601	2,069	14.4	Submitted	No Contact	
SMITHTOWN CSD	580801	8,041	30.4	Submitted	No Contact	
SOUTH COUNTRY CSD	580235	4,002	34.6	Not Submitted	No Contact	
SOUTH HUNTINGTON UFSD	580413	5,872	8.0	Submitted	Underway	
SOUTHAMPTON UFSD	580906	1,331	51.2	Submitted	No Contact	
SOUTHOLD UFSD	581005	720	23.5	Submitted	No Contact	
SPRINGS UFSD	580304	693	37.5	Submitted	No Contact	
SYOSSET CSD	280502	7,083	11.7	Submitted	No Contact	
THREE VILLAGE CSD	580201	5,692	28.3	Submitted	No Contact	
TUCKAHOE COMN SD	580913	250	11.5	Submitted	No Contact	
UNIONDALE UFSD	280202	6,084	7.1	Submitted	No Contact	
VALLEY STREAM 13 UFSD	280213	2,005	3.0	Submitted	No Contact	
VALLEY STREAM 24 UFSD	280224	1,069	1.2	Submitted	No Contact	

LONG ISLAND LABOR MARKET REGION						
SCHOOL DISTRICT	BEDS CODE	2022-23 ENROLLMENT	AREA (sq mi)	NYSED SURVEY RESPONSE	NYSERDA FEP	UTILITY FAS
VALLEY STREAM 30 UFSD	280230	1,455	1.0	Submitted	No Contact	
VALLEY STREAM CENTRAL HS DISTRICT	280251	4,588	5.2	Submitted	No Contact	
WAINSCOTT COMN SD	580302	27	7.8	Submitted		
WANTAGH UFSD	280223	2,869	3.7	Submitted	No Contact	
WEST BABYLON UFSD	580102	3,720	6.0	Not Submitted	Underway	
WEST HEMPSTEAD UFSD	280227	1,622	3.0	Submitted	No Contact	
WEST ISLIP UFSD	580509	3,938	9.7	Submitted	No Contact	
WESTBURY UFSD	280401	4,632	3.9	Submitted	No Contact	
WESTHAMPTON BEACH UFSD	580902	1,778	16.2	Submitted	No Contact	
WILLIAM FLOYD UFSD	580232	9,342	11.5	Submitted	No Contact	
WYANDANCH UFSD	580109	2,671	2.5	Not Submitted	No Contact	

Transportation Means

About one-third of school districts in the Long Island Region own and operate buses. Nine (9) districts, or 9% of respondents, currently own and operate all school buses serving districts' needs; fifty-four (54, 53%) districts indicate that all transportation services are contracted out; and thirty-nine (39, 38%) indicate a mix of both. This is consistent with the NYSED's observation that, statewide, student transportation in more densely populated areas is generally contracted out to a third-party vendor, while districts in the more sparsely populated regions own and operate buses internally.

TRANSPORTATION MEANS – Long Island Region

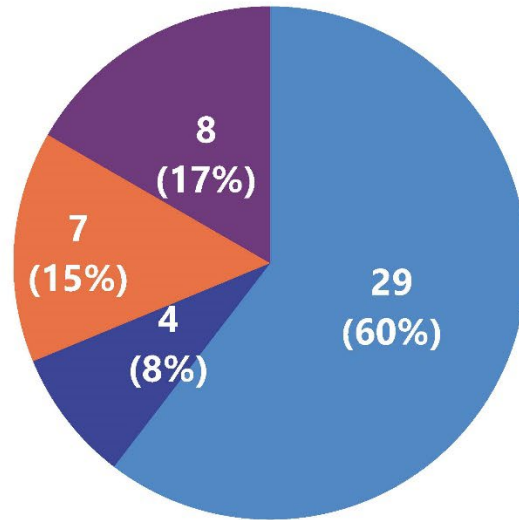


Means ● Own/Operate ● Mix ● Contract all

Bus Fleets

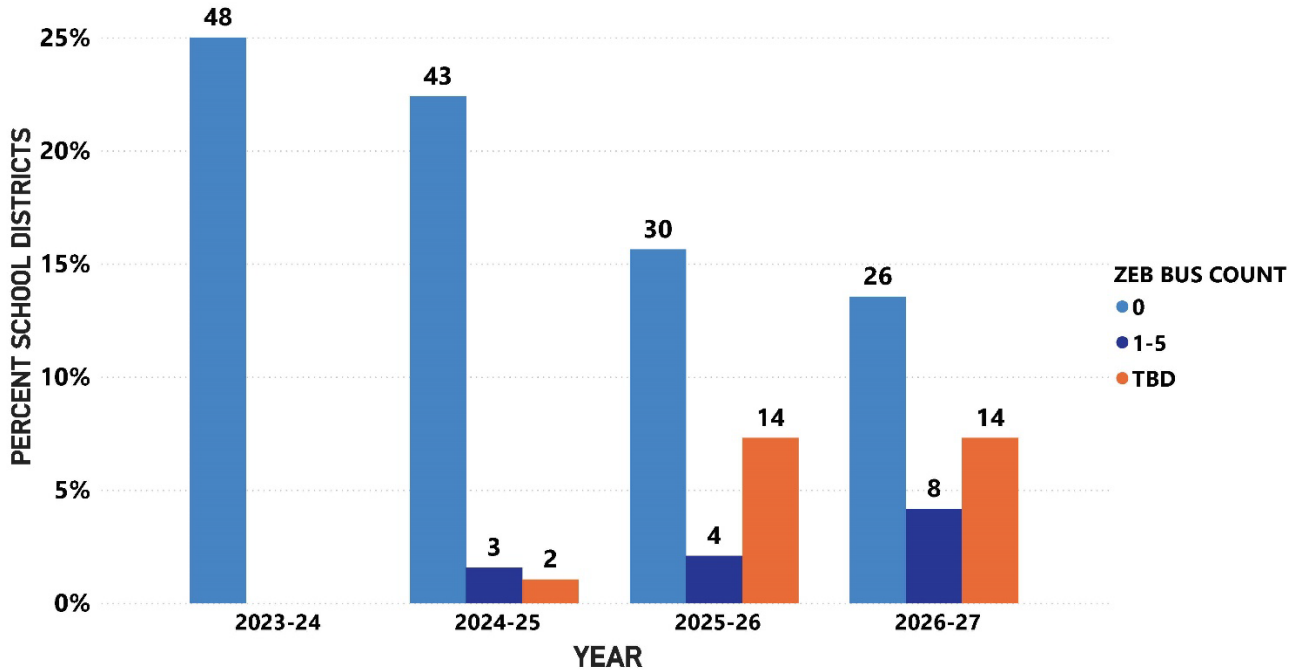
Forty-eight (48) school districts in the Hudson Valley Region provided NYSED with information on their current bus fleet and anticipated future needs. Twenty-nine (29) districts maintain between 1 and 20 buses; four (4) districts own between 21 and 40 buses; seven (7) districts maintain a fleet of between 41 and 60 buses; and eight (8) districts own greater than 60 buses. At this time there are no reports of school district-owned zero-emission buses in the region. Districts that own/operate bus fleets internally anticipate accelerating zero emission bus acquisitions during the statutory transition period of 2027 through 2035.

CURRENT FLEET SIZE – Long Island Region



Current Fleet Size ● 1-20 ● 21-40 ● 41-60 ● 61+

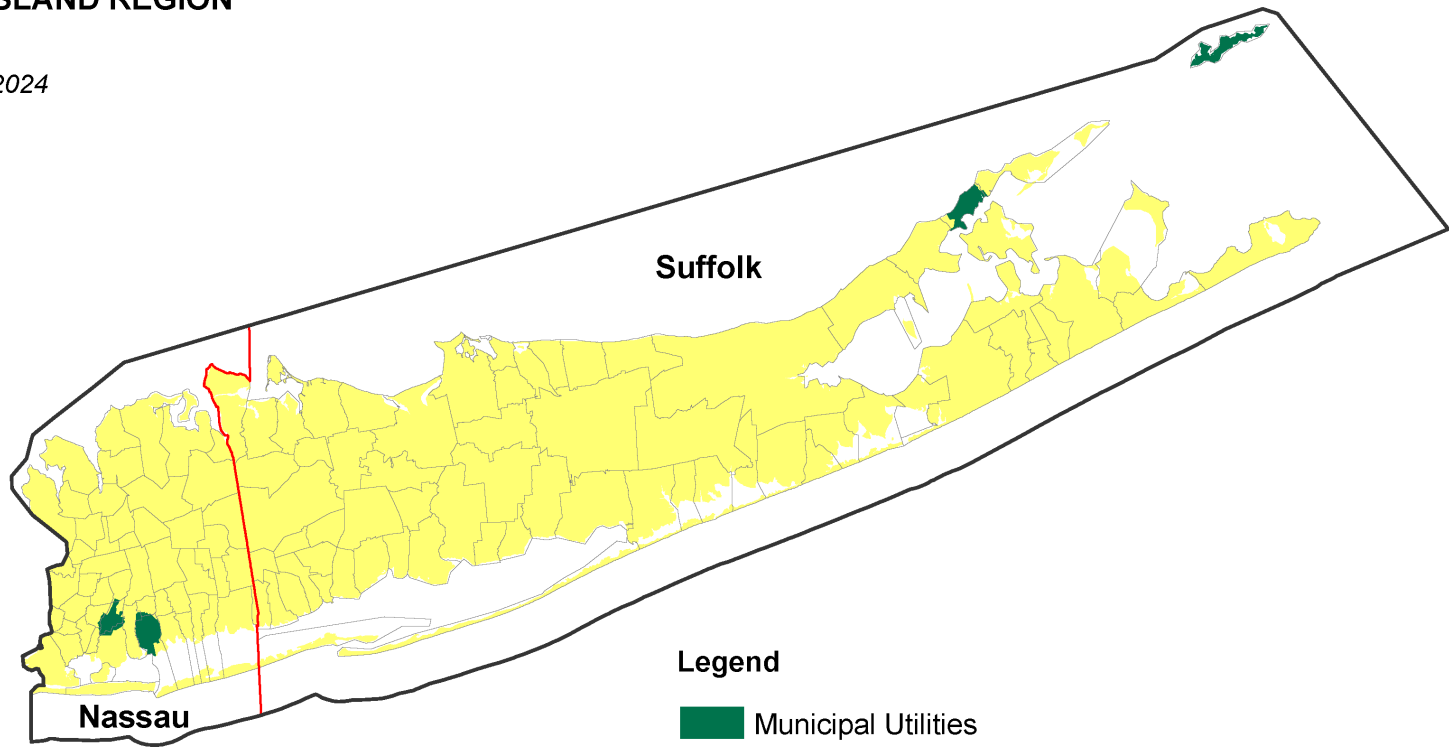
**CURRENT AND ANTICIPATED ZERO EMISSION BUSES
Long Island Region**



Infrastructure Assessment

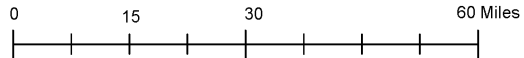
ELECTRIC SERVICE UTILITIES by NEW YORK STATE LABOR MARKET REGIONS - PUBLIC SCHOOLS LONG ISLAND REGION

October, 2024



Legend

-  Municipal Utilities
-  Public Service Enterprise Group-Long Island
-  Counties
-  Long Island Region
-  School Districts

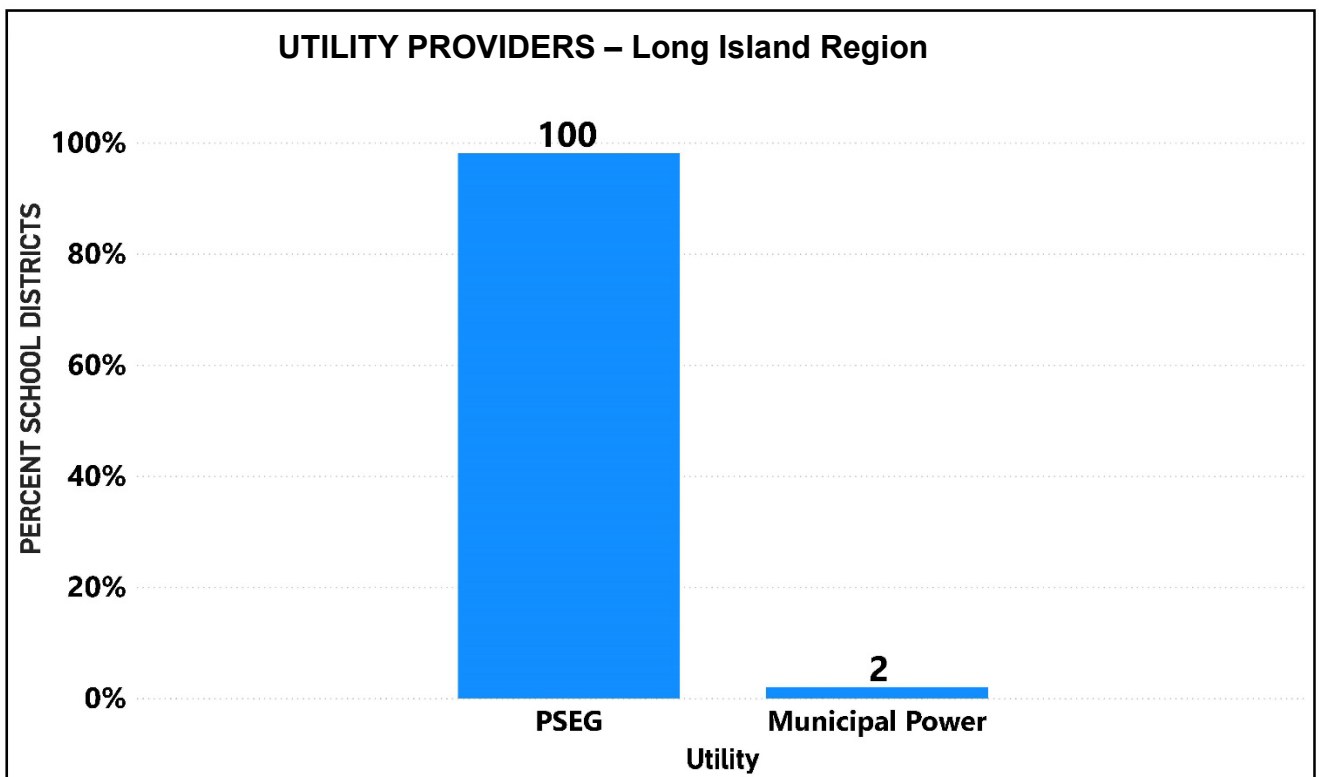


Map created by the NYS Education Department
Data Source: SEDREF and NYSED INFORMATION AND REPORTING SERVICES

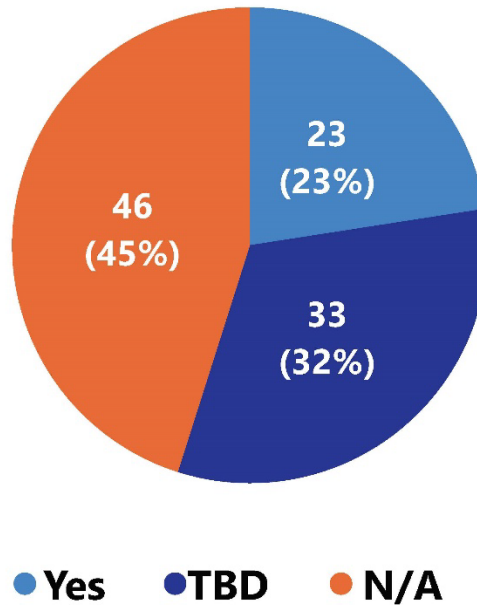
Electric Service

School Districts in the Long Island Region primarily receive electricity from one (1) major utility company—PSEG-LI. However, also as indicated, there are some small utility providers serving a similarly small number of districts. Of those districts that reported data to NYSED, one hundred-two (102) receive electric service from PSEG-LI, and two (2) report receiving service from a municipal utility.

In general, districts in the Long Island Region report that current electric service is sufficient for their needs in 2024-25. However, as evidenced in the graph below, about one-quarter of respondents—twenty-three (23) districts—anticipate that service capacity will need to be enhanced to support a fully electric bus fleet, with thirty-three (33) additional districts waiting for a determination to be made.

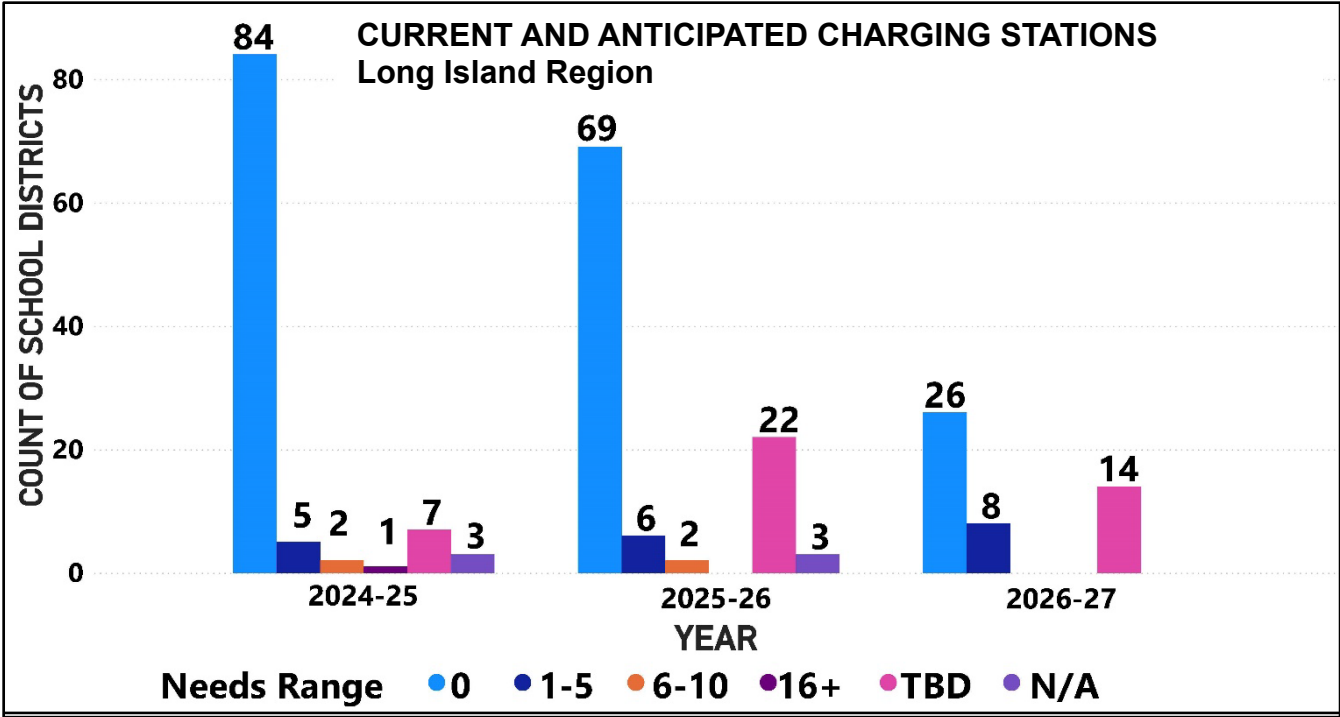


ELECTRIC SERVICE ENHANCEMENTS NEEDED? – Long Island Region



Charging Stations and Infrastructure

Eighty-four (84) school districts in the region that responded to the survey report that there are no charging stations available in district, currently. However, there are eight (8) school districts that either have some charging stations ready for use or anticipate that chargers will be installed during the 2024-25 school year. Mirroring the data around bus acquisition, districts anticipate accelerating the purchase and installation of charging stations in the coming years. The graph below indicates that by the 2026-27 school year, at least seventeen (17) districts in the region anticipate that some charging stations will be installed. The primary reasons cited for the current limited availability are the lack of adequate electric service available to districts, needing to wait until formal fleet electrification plans are completed, and that a significant number of districts that contract for all transportation services do not anticipate installing charging infrastructure at the district.



New York City Region

The New York City Labor Market Region contains five (5) counties—Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island). Together, there is only one (1) school district covering an area of approximately 304 square miles that was responsible for educating 797,844 school-age children in the 2022-23 school year. The District provided a summary report describing in detail the status of its transition to zero-emission busing as of June 30, 2024. This document, in full, is included in this report as Appendix 1. Overall, the district reports that it is working closely with NYSERDA and ConEd on assessing its needs and securing external funding through grants and other programs to support the transition to zero-emission buses.

Appendix

New York City Department of Education
Office of Pupil Transportation
Local Law 120 Report
June 30, 2024

LEGISLATIVE MANDATE

LOCAL LAW NO. 120 FOR THE YEAR 2021

Subdivision f of section 24-163.9 of the administrative code of the city of New York, as amended by local law number 120 for the year 2021 provides:

f. Reporting requirements. (2) Before the end of the fiscal year commencing on July 1, 2023 (...) the department of education shall submit a report to the mayor and the speaker of the council on:

- i. actions taken to achieve the requirement provided by subdivision e to replace school buses with all-electric zero emission school buses by September 1, 2035
- ii. barriers, if any, to achieving such replacement by such date
- iii. plans to address the barriers described in subparagraph ii
- iv. a date by which such replacement will be complete
- v. the safety and reliability of the all-electric zero emission school buses in use pursuant to a school bus contract
- vi. the percentage of routes served by all-electric zero emission school buses where the origin or destination is located in an environmental justice area as defined in section 3-1001
- vii. a description of each model of all-electric zero emission school bus that is in use pursuant to a school bus contract, including but not limited to the name of the manufacturer and the number of buses of each such model in use
- viii. applications that have been submitted by the department for federal, state, private or other funding for the purpose of achieving such replacement
- ix. progress that vendors have made in developing charging infrastructure, including the proportion of such charging infrastructure that has been installed in an environmental justice area as defined in section 3-1001

(3) The first report required pursuant to paragraph 2 of this subdivision shall include whether there are, or the status of achieving by the date of the next report, 75 all-electric zero emission school buses.

SECTION ONE – SUMMARY

New York City Public Schools (“NYCPS”, aka the New York City Department of Education) provides pupil transportation through a 100% externally contracted fleet. Within NYCPS, the Office of Pupil Transportation (“OPT”), under the guidance of the Chief Operating Officer (“COO”), manages student transportation across the five boroughs of New York City. OPT transports more than 150,000 students across approximately 9,000 daily routes operated by more than 50 individual bus vendors.

In coordination with the Mayor’s Office of Climate and Environmental Justice (“MOCEJ”), the EPA, NYSERDA and Con-Ed, NYCPS has actively engaged with our vendors to provide knowledge and raise awareness of opportunities for assistance with respect to the electrification of the school bus fleet. This included a comprehensive workshop and materials created to educate our vendors around electrification. NYCPS is committed to continuing this engagement with our vendors, as well as providing them with letters of support and other documentation they need to qualify for grant funding.

Considering the number of electric school buses currently operated by city contractors as well as the influx of federally awarded dollars from the EPA Clean School Bus Grant, we anticipate that there will be more than 400 electric school buses in operation in New York City prior to the next required report, which is due in June 2029. This number could be higher, depending on future grant awards and investments made by vendors. It is important to note that most current yellow bus transportation contracts expire in June of 2025 and that some of our current vendors may not be the same going forward. That said, all awarded electric vehicles are required to operate within the school district for a minimum of five years, and as such we anticipate ownership transfer would occur if new vendors began serving NYCPS. NYCPS vendors have been very aggressive about pursuing federal and state grant opportunities to further their journey towards operating a 100% zero-emission fleet by 2035. NYCPS’s current vendors have submitted 49 applications for nearly 1,300 buses. In addition to grant awards, vendors continue to pursue opportunities to self-fund vehicles. There are currently 14 vendor funded electric vehicles in operation: 11 repowered vehicles (gas/diesel buses converted to electric) and 3 new electric buses. Given the uncertainty of our contracting modeling, grant funding and electrical infrastructure requirements, it is difficult to predict when complete replacement will be achieved.

Grant	Applications				Vehicles			
	Number of Apps	Awarded	Not Awarded	Pending	Number of Buses	Awarded	Not Awarded	Pending
EPA Round 1	7	3	4	0	151	51	100	0
EPA Round 2	5	2	3	0	405	180	225	0
EPA Round 3	30	7	23	0	685	163	522	0
NYSBIP	7	0	0	7	54	0	0	54
Total	49	12	30	7	1,295	394	847	54

SECTION TWO – EXISTING ELECTRIC SCHOOL BUSES IN NEW YORK CITY AND PROGRESS ON INFRASTRUCTURE

Current Inventory

The table below contains the details of the 14 electric buses currently in operation:

Manufacturer	Type	Bus#	Areas Serviced	Environmental Justice Area (Source)
Unique Electric Solutions- Repower	C	5130-ESB	Brooklyn	Yes
Unique Electric Solutions- Repower	C	4031-ESB	Brooklyn	Yes
Unique Electric Solutions- Repower	C	5129-ESB	Queens	Yes
Unique Electric Solutions- Repower	C	E001	Queens	Yes
Unique Electric Solutions- Repower	C	E002	Queens	Yes
Unique Electric Solutions- Repower	C	E003	Queens	Yes
Unique Electric Solutions- Repower	C	E004	Queens	Yes
Unique Electric Solutions- Repower	C	E005	Queens	Yes
Collins	A	NT2101-ESB	Citywide	Yes
Microbird	A	NT2102-ESB	Citywide	Yes
Thomas	A	NT2103-ESB	Citywide	Yes
Unique Electric Solutions- Repower	C	129-ESB	Bronx	Yes
Unique Electric Solutions- Repower	C	136-ESB	Bronx	Yes
Unique Electric Solutions- Repower	C	137-ESB	Bronx	Yes

Current Infrastructure Projects

Vendors continue to work with Con-Ed towards building charging capacity capable of supporting electrification targets. Currently, seven vendors are working towards infrastructure upgrades. These seven vendors are pursuing upgrades at 17 bus depots. Of these 17 bus depots, 14 are in environmental justice areas. The locations are as follows: 8 in the Bronx, 4 in Brooklyn, 2 in Staten Island, 2 in Queens and 1 in Westchester County.

Safety and Reliability

NYCPS has had regular discussions with vendors regarding the operation of electric buses. While there are few buses on the road currently, most of which have come into operation in the last 12 months, there are some common themes in terms of safety and reliability:

- 1) Charging Issues – including:
 - a. The length of time it takes to charge
 - b. Midday charging capabilities
 - c. Battery quality issues and/or development of battery technology
- 2) Braking Issues – failed deceleration tests
- 3) Range – maximum of 100 miles, raising concerns about longer routes and field trips.
 - a. The average bus travels 60 miles in a day
 - b. 25% of buses travel over 70 miles in a day
 - c. 10% of buses travel over 90 miles in a day
 - d. Extreme temperatures can greatly affect the miles driven per charge

NYCPS intends to continue monitoring issues with electric buses, as well as the development of the technology, keeping in mind this is a rapidly developing field.

SECTION THREE – INDUSTRY-WIDE VIEW OF ELECTRIC SCHOOL BUSES

There are many “barriers to (...) achieving the replacement of school buses with all-electric zero emission school buses by September 1, 2035.” For each of the three “barriers” noted below, “plans [and strategies] to address [and mitigate] the barriers” are also noted.

- **Barrier: High Cost of New Electric School Buses**
 - A review of the New York State Office of General Services Statewide Contract for School Buses^[1] shows that:
 - Type A electric school buses are 2.3-2.7x more expensive up-front than their gasoline-powered equivalents
 - Type C electric school buses are 1.6-1.8x more expensive up-front than their gasoline and diesel-powered equivalents
 - The increased level of investment necessitated by this price differential may cause some vendors to lag in early implementation of the technology, which could ultimately lead to a delay in achieving the requirement.
 - Overall levels of production of electric school buses are presently lower than would be necessary to meet Statewide and national needs by the 2035 deadline, plus related supply-chain constraints
 - Mitigants include the following: “although electric school buses have higher upfront costs than traditional diesel or gasoline-powered buses, the total cost of ownership is expected to reach parity by 2027 due to advances in battery technology, increased supply chain outputs, as well as lower fuel and maintenance expenses”^[2]
 - Mitigant: Grant programs from the Federal and State government which subsidize the purchase of electric school buses. (See section 4.)
 - Mitigant: Many vendors have explored retrofits/repowers, and NYSERDA has allowed these to qualify for the NYSBIP program. The marginal cost of these vehicles is lower than a new electric school bus.

- **Barrier: Sufficient Electricity for Charging at School Bus Depots**
 - Many school bus depots are lacking in sufficient electrical supply for bus charging, and many are not electrified at all.
 - Mitigant: ConEdison (local utility) working with our vendors to ensure sufficient supply of electricity at depots to support a fully electrified fleet

- **Barrier: Sufficient Charging for Fleet During the Day**
 - Many school buses operate routes that would require them to charge in the middle of the day. Access to on-street chargers for this subset of the school bus fleet will need to be addressed in addition to the electrification of school bus depots noted above
 - Future Strategic Mitigant: NYC Department of Citywide Administrative Services (“DCAS”) Fleet team installing curb-side chargers city-wide which buses could utilize
 - Future Strategic Mitigant: NYC School Construction Authority (“SCA”) could install charging infrastructure at schools for mid-day charging where feasible and legally appropriate

SECTION FOUR – EXISTING GRANT OVERVIEW

NYCPS provides pupil transportation through a 100% externally contracted fleet. Given this operating model, NYCPS has not submitted any applications for federal, state, private or other funding for the purpose of “achieving the replacement of school buses with all-electric zero emission school buses by September 1, 2035.”

OPT currently contracts with about 50 individual school bus contractors. These school bus contractors apply for a variety of federal, state, private or other funding on their own accord. NYCDOE has provided applicants with letters of support and any other forms required to be submitted with grant applications by Federal or State regulations, as well as informational support.

This is a time of unprecedented investment into electric school buses by the US Federal Government. The Bipartisan Infrastructure Bill included \$5B for the EPA’s Clean School Bus Program (“CSBP”). The EPA has already awarded \$2.8B in the first three rounds of funding for this program nationally, and current NYCDOE vendors have been named recipients for over \$125M in funding.

- 188 buses for City-Affiliated Bronx-based NYCSBUS
 - o \$8.0M for 25x Type A (Round 1 lottery, October 2022, Citywide award)
 - o \$29.5M for 100x Type A (Round 2 competitive, January 2024, Citywide award)
 - o \$18M for 63x Type A (Round 3 lottery, May 2024, Districts 2, 3, 4)
- 105 buses for Consolidated Bus Transit
 - o \$10.0M for 25x Type C (Round 1 lottery, October 2022, District 1)
 - o \$31.6M for 80x Type C (Round 2 competitive, January 2024, Districts 19, 20, 21, 22)
- 50 Buses for Logan Bus Company
 - o \$15M for 25x Type A and 25x Type C (Round 3 lottery, Districts 23, 25)
- 25 Buses for Pioneer Transportation
 - o \$8.6M for 25x Type C (Round 3 lottery, District 7)
- 25 Buses for GVC
 - o \$6.2M for 25x Type A (Round 3 lottery, Citywide award)
- 1 bus (\$0.5M) for Jofaz (Round 1, for Community Partnership Charter, Brooklyn)

Just under half (\$2.17B of \$5B) of the US EPA CSBP program remains unannounced. NYCDOE eagerly awaits new information on forthcoming rounds of funding and will continue to assist and support our vendors in their applications.

Additional federal funding opportunities exist for NYCDOE’s school bus contractors through the US EPA’s Clean Heavy-Duty Vehicles (“CHDV”) or Diesel Emissions Reduction Act (“DERA”) programs, as well as through Federal tax credits such as the Qualified Commercial Clean Vehicle (45W) and Alternative Fuel Vehicle Refueling (30C) credits. Unfortunately, US EPA’s CHDV program makes private operators like most of NYCDOE’s school bus contractors ineligible.

Grants are also available to NYCDOE school bus contractors from the New York State Energy Research and Development Authority. (“NYSERDA”) The New York School Bus Incentive Program (“NYSBIP”) was funded with \$500M from the Environmental Bond Act approved by voters in November 2022, and the funding availability was announced in September 2023. Applications opened in late November 2023 and are being funded by NYSERDA on “first-come, first-served” basis.

Applications Submitted by Current NYCPS Vendors

Grant	Vendor	# of Buses	District	Status
EPA Round 1	Consolidated	25	1	Awarded
EPA Round 1	Jofaz	1	17	Awarded
EPA Round 1	NYCSBUS	25	Chancellor's Office (Citywide)	Awarded
EPA Round 1	Logan (Bobby's)	25	9	Not Awarded
EPA Round 1	Logan (Grandpa's)	25	27	Not Awarded
EPA Round 1	Pioneer	25	7	Not Awarded
EPA Round 1	Pioneer	25	31	Not Awarded
EPA Round 2	Consolidated	80	19, 20, 21, 22	Awarded
EPA Round 2	NYCSBUS	100	Chancellor's Office (Citywide)	Awarded
EPA Round 2	Total Transportation (First Student)	25	18, 19, 22, 24, 25, 26, 27, 28, 29	Not Awarded
EPA Round 2	GVC	100	7, 8, 9, 10, 11, 12	Not Awarded
EPA Round 2	Pioneer/Logan	100	7, 8, 9, 10, 11	Not Awarded
EPA Round 3	GVC	25	Chancellor's Office (Citywide)	Awarded
EPA Round 3	Pioneer	25	7	Awarded
EPA Round 3	Litle Linda	25	23	Awarded
EPA Round 3	Lorissa	25	25	Awarded
EPA Round 3	NYCSBUS	21	2	Awarded
EPA Round 3	NYCSBUS	21	3	Awarded
EPA Round 3	NYCSBUS	21	4	Awarded
EPA Round 3	Total Transportation (First Student)	25	26	Not Awarded
EPA Round 3	Total Transportation (First Student)	25	29	Not Awarded
EPA Round 3	Pioneer	25	8	Not Awarded
EPA Round 3	Pioneer	25	31	Not Awarded
EPA Round 3	Grandpa's	25	10	Not Awarded
EPA Round 3	Logan Bus	25	27	Not Awarded
EPA Round 3	Logan Transportation	25	12	Not Awarded
EPA Round 3	Litle Richie	25	9	Not Awarded
EPA Round 3	Bobby's	25	24	Not Awarded
EPA Round 3	Lorinda	25	19	Not Awarded

Grant	Vendor	# of Buses	District	Status
EPA Round 3	Litle Lisa	25	11	Not Awarded
EPA Round 3	NYCSBUS	21	1	Not Awarded
EPA Round 3	NYCSBUS	21	5	Not Awarded
EPA Round 3	NYCSBUS	21	6	Not Awarded
EPA Round 3	NYCSBUS	21	13	Not Awarded
EPA Round 3	NYCSBUS	21	14	Not Awarded
EPA Round 3	NYCSBUS	21	15	Not Awarded
EPA Round 3	NYCSBUS	21	16	Not Awarded
EPA Round 3	NYCSBUS	20	17	Not Awarded
EPA Round 3	NYCSBUS	20	20	Not Awarded
EPA Round 3	NYCSBUS	20	21	Not Awarded
EPA Round 3	NYCSBUS	20	32	Not Awarded
EPA Round 3	NYCSBUS	20	75	Not Awarded
NYSBIP	Total Transportation (First Student)	25	18, 19, 22, 24, 25, 26, 27, 28, 29	Pending
NYSBIP	Hoyt Transportation	1	7, 8, 9, 10, 11, 12	Pending
NYSBIP	Careful Bus	1	Citywide	Pending
NYSBIP	Careful Bus	5	Citywide	Pending
NYSBIP	GVC	20	Citywide	Pending
NYSBIP	Marcan	1	Citywide	Pending
NYSBIP	IC Bus	1	Citywide	Pending

ACKNOWLEDGEMENTS

^[1] <https://online.ogs.ny.gov/purchase/spg/awards/4052423254CAN.HTM>

^[2] <https://www.nyserda.ny.gov/All-Programs/Electric-School-Buses/Electric-School-Bus-Roadmap>

^[3] Definition from Wikipedia: “when a vehicle operates without carrying or accepting passengers, such as when coming from a garage to begin its first trip of the day.”