

Dansville Central School District Zero Emission Vehicle Transition Plan

January 2026

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Agenda

- Introduction of Wendel Team
- NYS FEP Mandate
- Bus Routes
- Utility Requirements
- Phasing & Costs

Who is here today





John Davis
Project Manager
Energy Services



Bradley Flanagan
Technical Lead
Energy Services



Dante Bucci
Energy Services

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Wendel has a strong practice in the **transportation sector** and provides planning, design and execution services for **Battery Electric Vehicles, charging infrastructure and operation facilities**.

Wendel also has a strong **alternative fuels** group that provides consulting services for propane, compressed natural gas, battery electric vehicles and hydrogen fueled vehicles.

Services Wendel Offers:

ARCHITECTURE
- INTERIOR DESIGN
- LANDSCAPE ARCHITECTURE

ENGINEERING
- CIVIL
- ELECTRICAL
- ENVIRONMENTAL
- MECHANICAL
- MUNICIPAL
- STRUCTURAL
- TRANSPORTATION
- RAILROAD
- ALTERNATIVE FUEL SOLUTIONS/CNG
- WATER/ WASTEWATER RETROFITS
- LAND SURVEYING
- GEOGRAPHIC INFORMATION SYSTEMS (GIS)
- PLANNING

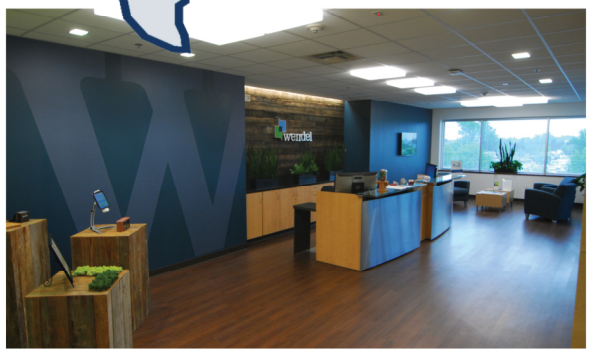
ENERGY EFFICIENCY
- ENERGY AUDITS
- COMMISSIONING
- PROFESSIONALLY ASSISTED PERFORMANCE CONTRACTING
- ALTERNATIVE FUNDING/GRANT PROGRAMS
- RETROFIT AND IMPLEMENTATION DESIGN
- GREEN BUILDING DESIGN
- MEASUREMENT & SAVINGS VERIFICATION (M&V)
- RENEWABLE TECHNOLOGIES

CONSTRUCTION MANAGEMENT
- MASTERBUILDER
- PROGRESSIVE DESIGN/BUILD
- DESIGN/BID/BUILD
- CONSTRUCTION MANAGEMENT AT RISK (CMAR)
- CM AGENT
- GMP DESIGN/BUILD



MAP OF WENDEL OFFICES (WENDEL ICONS) AND STATES THAT WENDEL IS QUALIFIED TO DO BUSINESS IN (GREY SHADE)





300+ Employees

16 Offices Nationwide

27 Registered Architects

37 Professional Engineers

16 Certified Energy Managers

Services Wendel Offers:

ARCHITECTURE
- INTERIOR DESIGN
- LANDSCAPE ARCHITECTURE
- HISTORICAL RESTORATION/ PRESERVATION

ENGINEERING
- CIVIL
- ELECTRICAL
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MAP OF WENDEL OFFICES (WENDEL ICONS) AND STATES THAT WENDEL IS QUALIFIED TO DO BUSINESS IN (GREY SHADE)





National Presence, Local Feel.

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Zero-Emission Bus Mandate

- By **2027** all new school bus purchases need to be zero-emissions. By **2035** all school buses on the road need to be zero-emissions.
- The Senate is requiring the state to identify barriers to the 100% by **2035** goal so that they may be resolved early.
- A two-year waiver extension is available for qualifying districts.
- New York State Energy Research and Development Authority (NYSERDA) is being tasked to provide technical assistance to school districts as they navigate the transition to 100% electric buses.



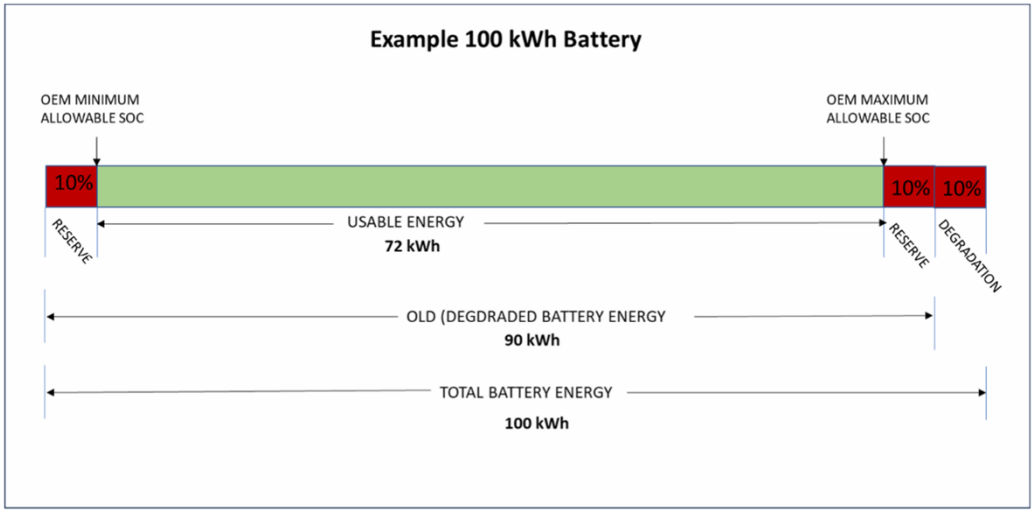
Bus Routes

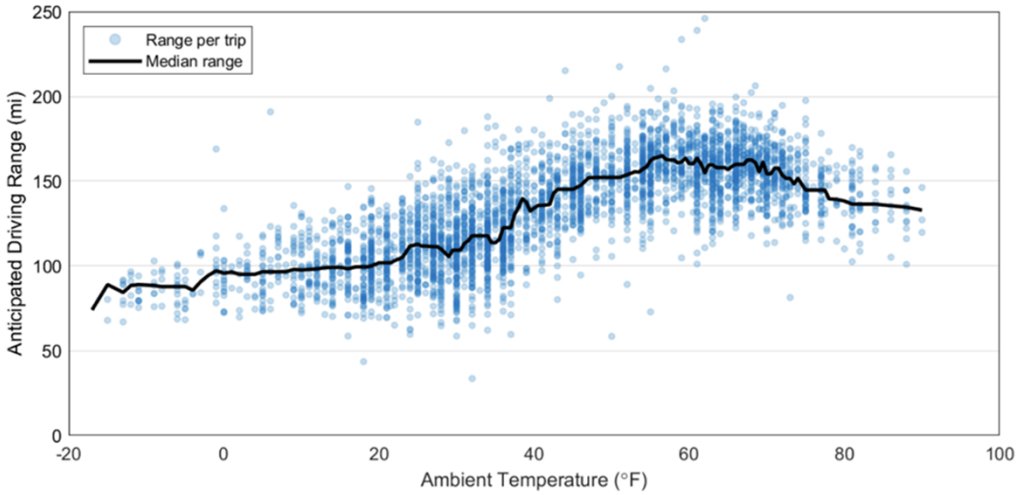
- Evaluation of 24 existing route buses
- 83% of current routes can be completed with EV buses on the market
- The routes of 4 buses cannot be completed with EV buses on the market

	Bus Size	Bus Type	Route Buses	Spare Buses	Total Buses
Buses	175 kWh – Bluebird	Type A	3	2	5
	155 kWh – Bluebird	Type C	5	0	5
	246 kWh – Thomas	Type C	4	0	4
	315 kWh – IC	Type C	8	8	16
	No Current Replacement	Type A & Type C	4	0	4
			24	**10**	**34**

	Charger Size	Route Bus Charger	Spare Bus Chargers	Total Proposed Chargers	Total Proposed Charging Positions
Chargers	24 kW	8	4	12	12
	60 kW	10	0	10	10
	120 kW	5	3*	8	11
	180 kW	1	0	1	1
		24	**7**	**31**	**34**

*These chargers are proposed to be used as 2:1 chargers to charge (2) ESBs.





Route Analysis Assumptions

- Full Bus
- Extreme Cold
- HVAC usage including 15 minutes of pre-heating
- Battery has degraded to 90%
- Battery does not go below 10%
- Battery does not charge above 90%
- 11% Safety factor on efficiency

Bus Routes with Transition Issues

- (4) Route buses routes cannot currently be performed
- All (4) Route buses are likely to be transitioned within the mandate period

Bus Number	Bus Type	Highest Route Distance (miles)	Minimum Bus Size based on Maximum Energy Usage (kWh)	Note	Feasible on Average Day?
217	Type A	70 miles	223 kWh	Technology is anticipated to become available within mandate period	Yes – 144 kWh ESB Required
231	Type C	73 miles	380 kWh	Technology is anticipated to become available within mandate period	No
232	Type C	62 miles	347 kWh	Technology is anticipated to become available within mandate period	Yes – 223 kWh ESB Required
237	Type C	63 miles	339 kWh	Technology is anticipated to become available within mandate period	Yes – 212 kWh Required

Utility Requirements

Peak Demand	Anticipated Peak EV Bus Demand / Load:	700 kVA
	Anticipated Peak Demand of all EV Buses and Student Transportation Vehicles:	758 kVA
District-side Infrastructure	The district will need a new 480V, 3-phase electric service fed from a new 1,000 kVA utility owned transformer. A new 1,600A main switchboard feeding (3) new switchboards will also be required for the charging equipment.	
Utility-side Infrastructure	NYSEG has completed their study and stated that based on an engineering review, the feeder and substation can accommodate the anticipated peak load though a new service transformer will be required.	

Required Infrastructure

Infrastructure Upgrades	
New utility service	
Power distribution equipment	
Ductbank from new service	
Power Feeds	
Fire protection upgrades	
(12) 24 kW chargers	
(10) 60 kW chargers	
(8) 120 kW chargers	
(1) 180 kW charger	
Total Infrastructure Cost:	**$4.65M**
Optional Fire Protection Upgrades:	**$0.6M**

**Costs shown in today's dollar value.*
***Costs do not include incentives or State-aid*

Grants and Incentives – Buses

State: New York School Bus Incentive Program – EV Bus Voucher

School Bus Type Base	Base Voucher	Priority District Bonus	Scrappage Bonus	V2G Add-on	Wheelchair Add-on
New Type A	$114,000	$28,500	$47,500	$9,500	$8,000
New Type C	$147,000	$36,750	$61,250	$12,250	$8,000
New Type D	$156,000	$39,000	$65,000	$13,000	$8,000

**Each priority school district may apply for the greater of ten (10) ESBs or 10% of their fleet.*

**School districts can apply for the greater of an additional 4% or four (4) ESBs if they complete an approved Fleet Electrification Plan.*

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Grants and Incentives – Chargers

State: New York School Bus Incentive Program – Charging Voucher

Type	Base Voucher Amount per Bus	Fleet Electrification Plan Bonus per Bus
Priority District	$35,000	$65,000

**Each Purchaser is limited to $2 million in Charging Voucher funds which is equivalent to 30 vouchers for Priority Districts*

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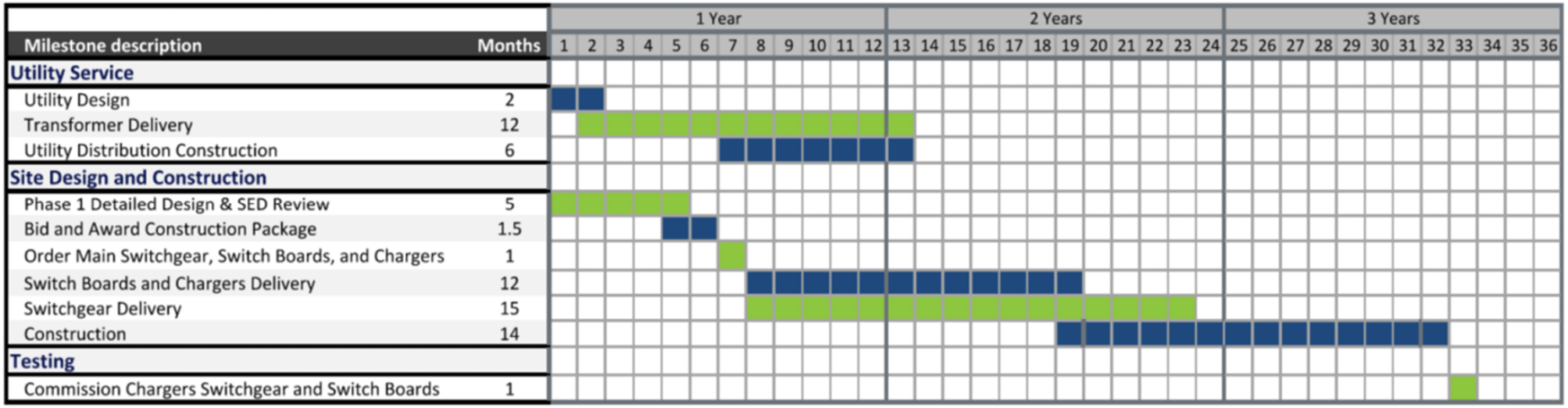
Grants and Incentives – Charging Infrastructure

State: Joint Utilities of New York Medium- and Heavy-Duty EV Make-Ready Pilot

- Up to 90% of the utility-side infrastructure costs.
- Up to 50% of customer side costs if bus garage is in / across from a disadvantaged community – Capped at $409.07/kW peak ESB charger demand.

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Schedule



Milestone description	Months
Utility Service	
Utility Design	2
Transformer Delivery	12
Utility Distribution Construction	6
Site Design and Construction	
Phase 1 Detailed Design & SED Review	5
Bid and Award Construction Package	1.5
Order Main Switchgear, Switch Boards, and Chargers	1
Switch Boards and Chargers Delivery	12
Switchgear Delivery	15
Construction	14
Testing	
Commission Chargers Switchgear and Switch Boards	1



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