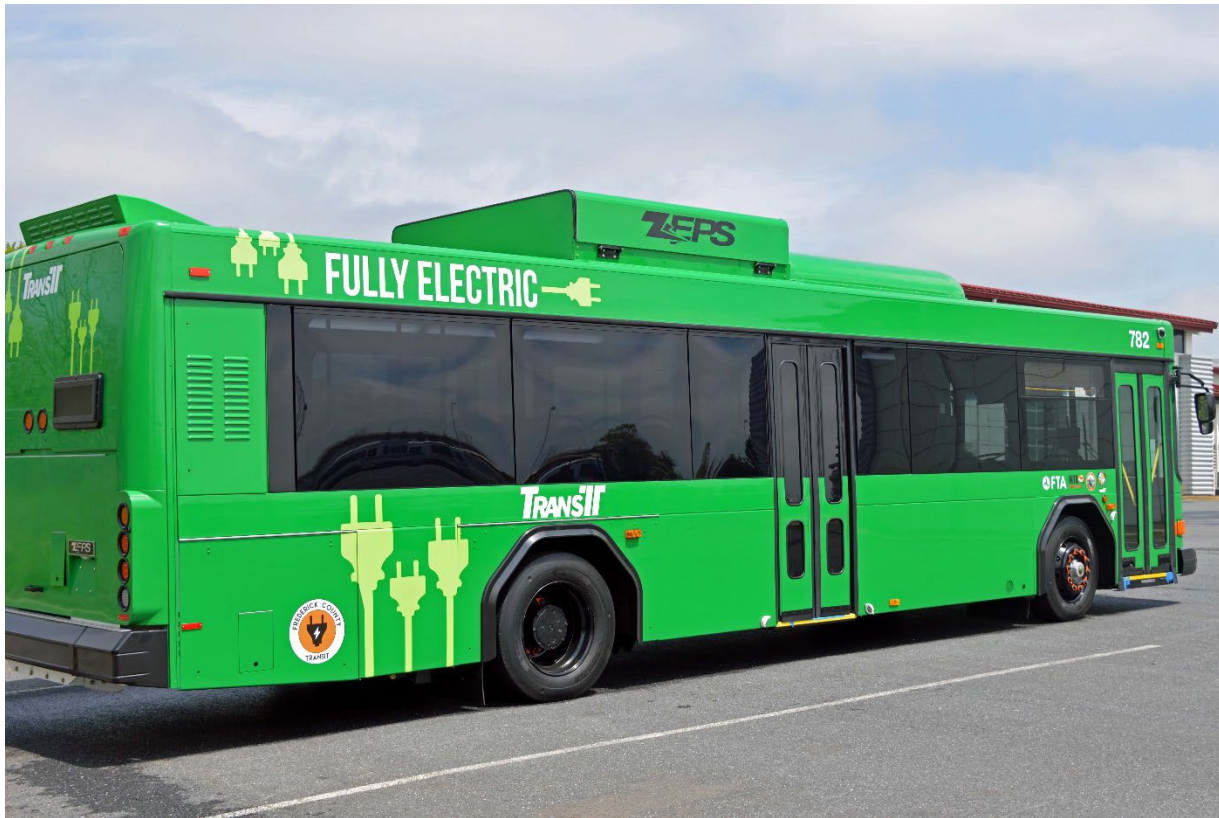


Transit Services of Frederick County Electric Bus Program



Updated February, 2023

5 refurbished CCW electric buses received May 2016 are currently in use in peak hour service
\$583k purchase cost per bus - \$2.9M total



4 BYD buses (2019-2020)

\$542k purchase cost per bus - \$2.2M total

- ▶ Purchased with LONO grant, MD Smart Energy Grant, local match



Electricity

New transformer and electric boxes:



Conduit for future 10 stations & generator capped off

10 Charging Stations installed (conduit ready for another 10)



Plug/cord and boxes supplied by Complete Coach Works

Cost of Infrastructure for 10 buses was \$175,000, funded by FTA, MTA, Frederick County and Maryland Energy Administration Smart Energy Grant



We are currently considering adding a generator to address power outages.

Solar

Frederick County Landfill Solar Array:



- Constructed by Tesla, 20-year agreement
- Covers 14 acres of landfill
- Generates 2 megawatts of power/day (under ideal conditions)
- Virtual net metering supplies nearly 20% of County government needs
- Will save the County \$250,000 to \$300,000
- Transit is one of 7 county beneficiaries

January 2023 Electric Bill

Account Summary	Amount Due
Previous Balance	-3,509.29
Payments/Adjustments	0.00
Balance at Billing on Jan 23, 2023	-3,509.29
Potomac Edison - Consumption	568.17
You have a credit balance of	-\$2,941.12
Usage Information for Meter Number A022182602	
Jan 20, 2023 KWH Reading (Actual)	4,901.035
Dec 21, 2022 KWH Reading (Actual)	4,901.035
Multiplier	200
KWH used	0
OnPeak Load in KW/KVA	270.7
OffPeak Load in KW/KVA	95.2
Measured Lagging Reactive Demand	2.16
Billed Load in KW/KVA	271.0
Charges From Potomac Edison	
Customer Number: 0804615956 5001360005	
Rate: Light and Power Service PE-PH2D	
Distribution Charge	482.38
Electric Universal Service Fee	36.84
Cogeneration PURPA Surcharge	48.95
Current Consumption Bill Charges	568.17
Charges from WGL Energy Services, Inc.	

Annual Operating Costs Per Bus

	Fuel:	Maintenance:
Diesel:	\$23,000	\$8,600 (brand new; increases with age)
Electric:	\$7,200	\$2,500
Savings:	\$15,800	\$6,100
% Cost Reduction	69%	71%

Savings expected to increase by \$14,000 per bus annually as diesel buses age out of the fleet

Annual and Lifetime Savings

Fuel:	\$15,800	per year
Preventive Maintenance:	\$20,100	after year 1 (incl \$14k per dzl bus retired)
TOTAL:	\$35,900	average approximate annual savings
	12	years of service
	<u>\$430,800</u>	savings over bus lifetime
	\$682,000	current cost of new electric bus (30')
	<u>\$505,000</u>	current cost of equivalent dzl bus (30')
	\$177,000	electric purchase premium
	~5-6	years to recuperate electric bus premium

Thank you! Questions?



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