NOACA EV CHARGING STATIONS PROGRAM

Business, Community, Rural, and Emerging Leaders Advisory Councils

March 27, 2026

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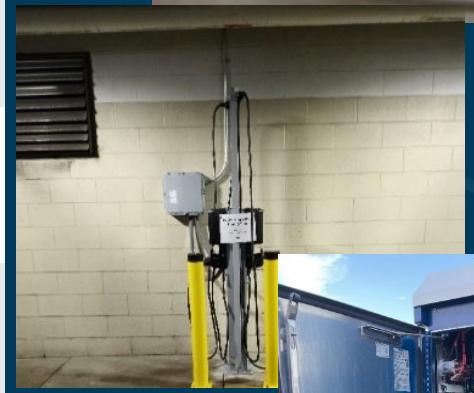
BACKGROUND

Charging Level	Location	Charging Time	Vehicle Range Added (Mile)	Power Rate (kw)	Supple Power
AC Level 1	Residential	One Hour	4 6	1.4 1.9	120VAC (Volts Alternating Current)/20A (12-16A continuous)
AC Level 2	Workplace & Public Garages	One Hour	10 20 60	3.4 6.6 19.2	208/240VAC/2-100A (16-80A continuous)
DC Fast Charging (DCFC)	Public Parking Garages & Lots	20 Minutes	24 50 90	24 50 90	240/480VAC 3-phase (input current proportional to output power; ~20-400 AC)



- Households paid an average of 10-13.4 cents per kWh of electricity
- For 15,000 VMT in a year, charging an EV costs $540 (4,500 kWh and 3.6 cents per mile)
- Conventional Vehicle fuel costs 11.3 cents per mile (22.9 MPG & $2.6 Gallon)

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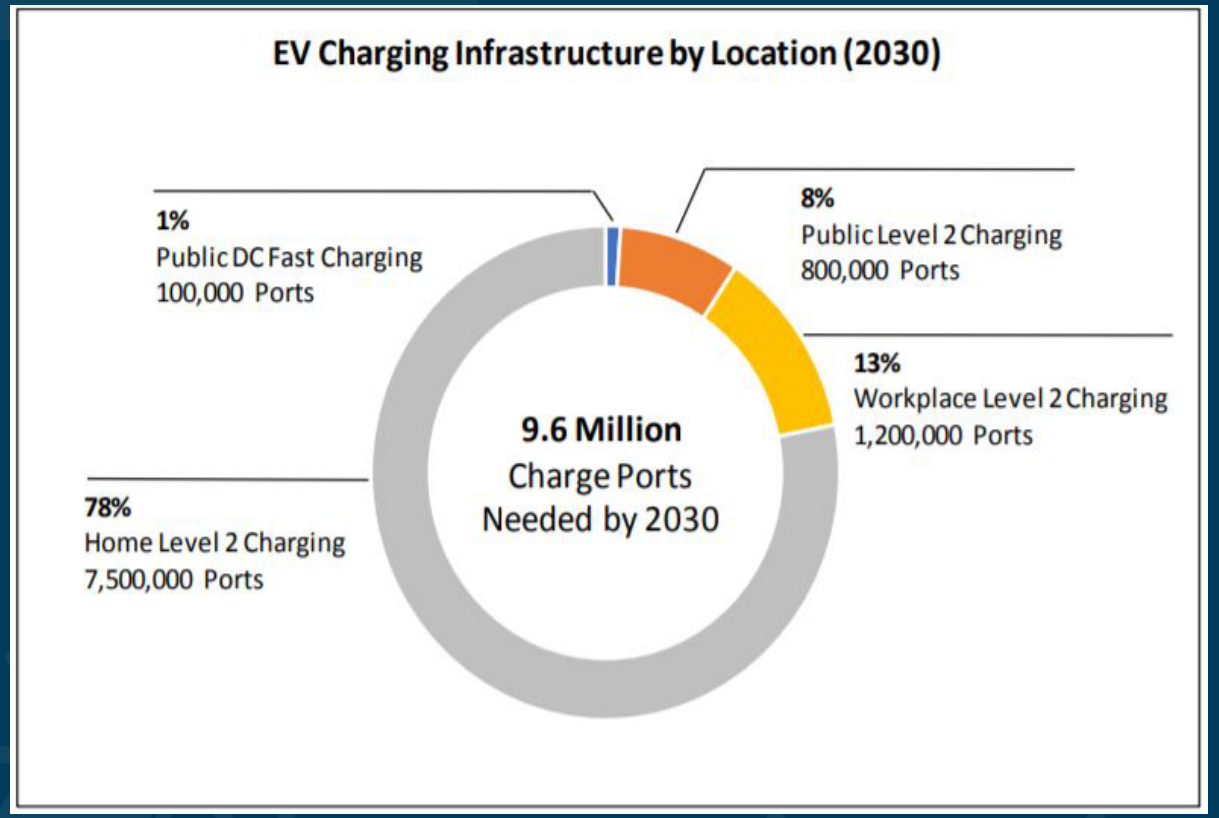
EV ADOPTION PROJECTS

National Projections

- 2018 1 million EVs
- 2030: 18.7 million EVs (7% of the 259 million cars and light trucks)
- Annual sales in 2030 will exceed 3.5 million (more than 20% of annual vehicle sales)

Source: Edison Electric Institute (EEI) & Institute for Electric Innovation (IEI) (Nov. 2018)



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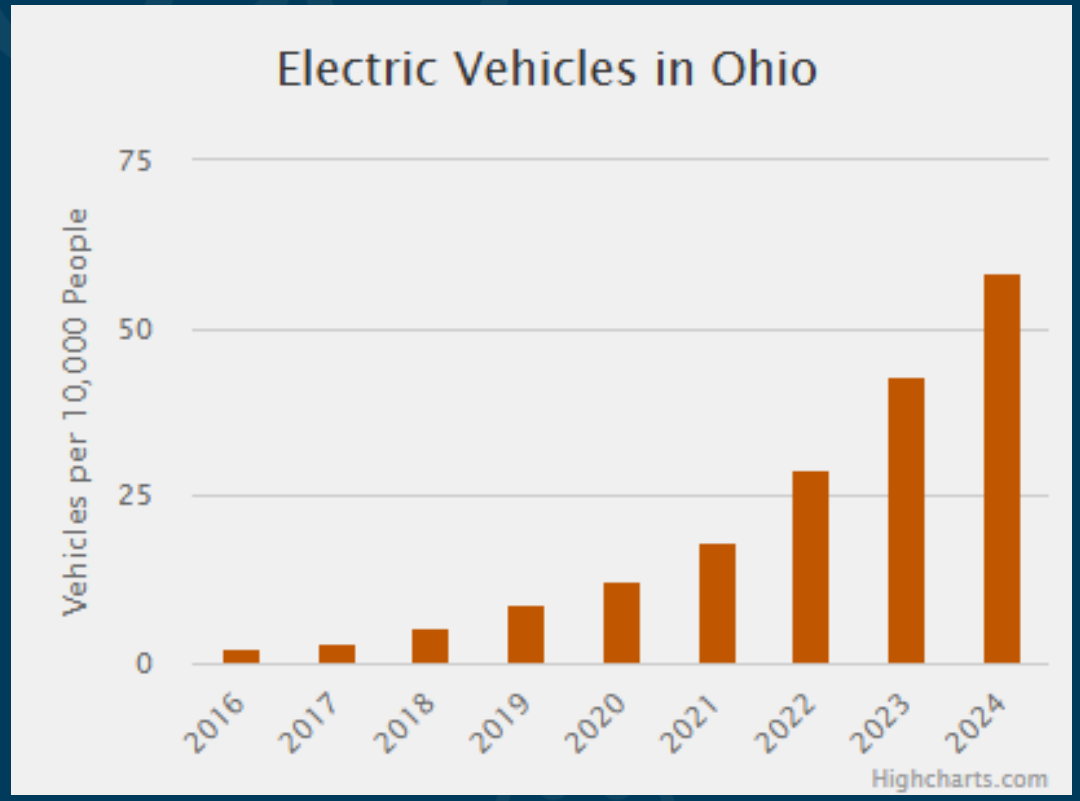
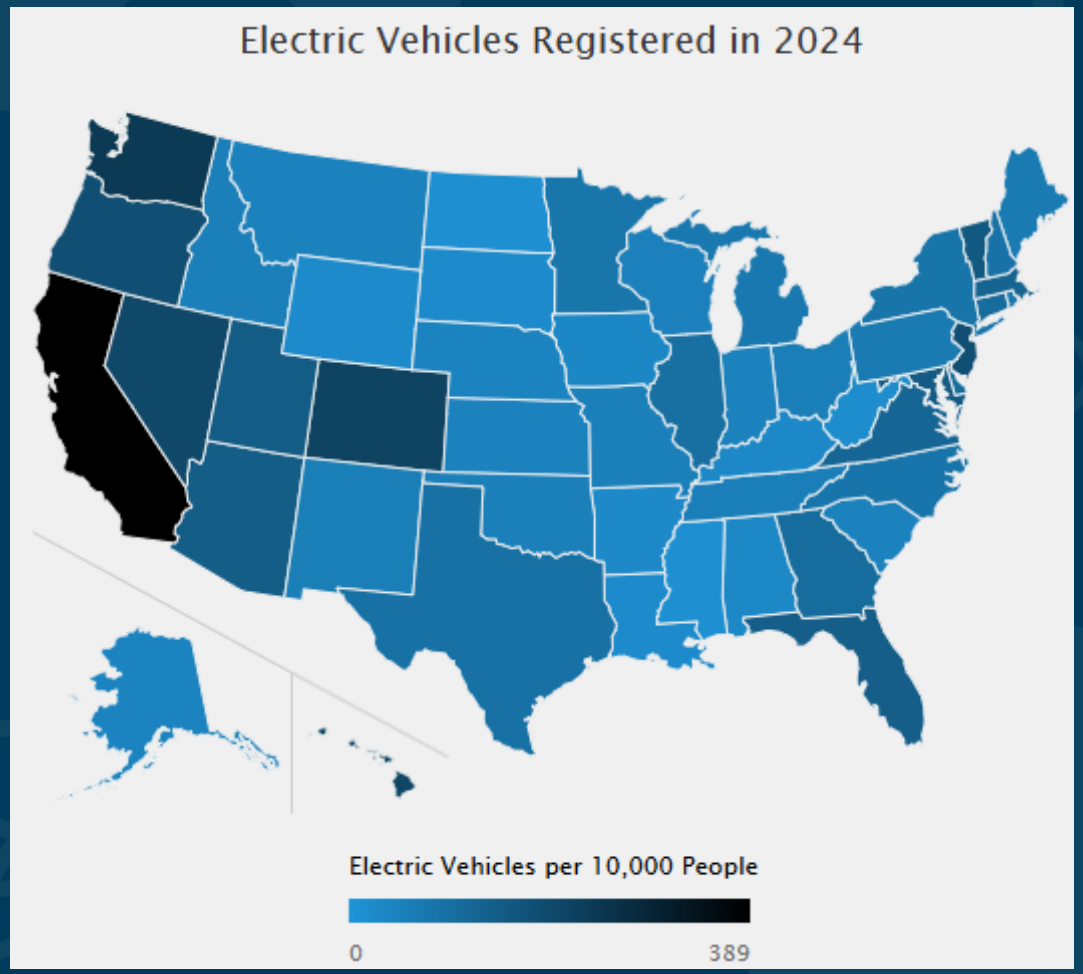
PLUG-IN ELECTRIC VEHICLES (PEV)





Source: U.S Department of Energy, Alternative Fuels Data Center

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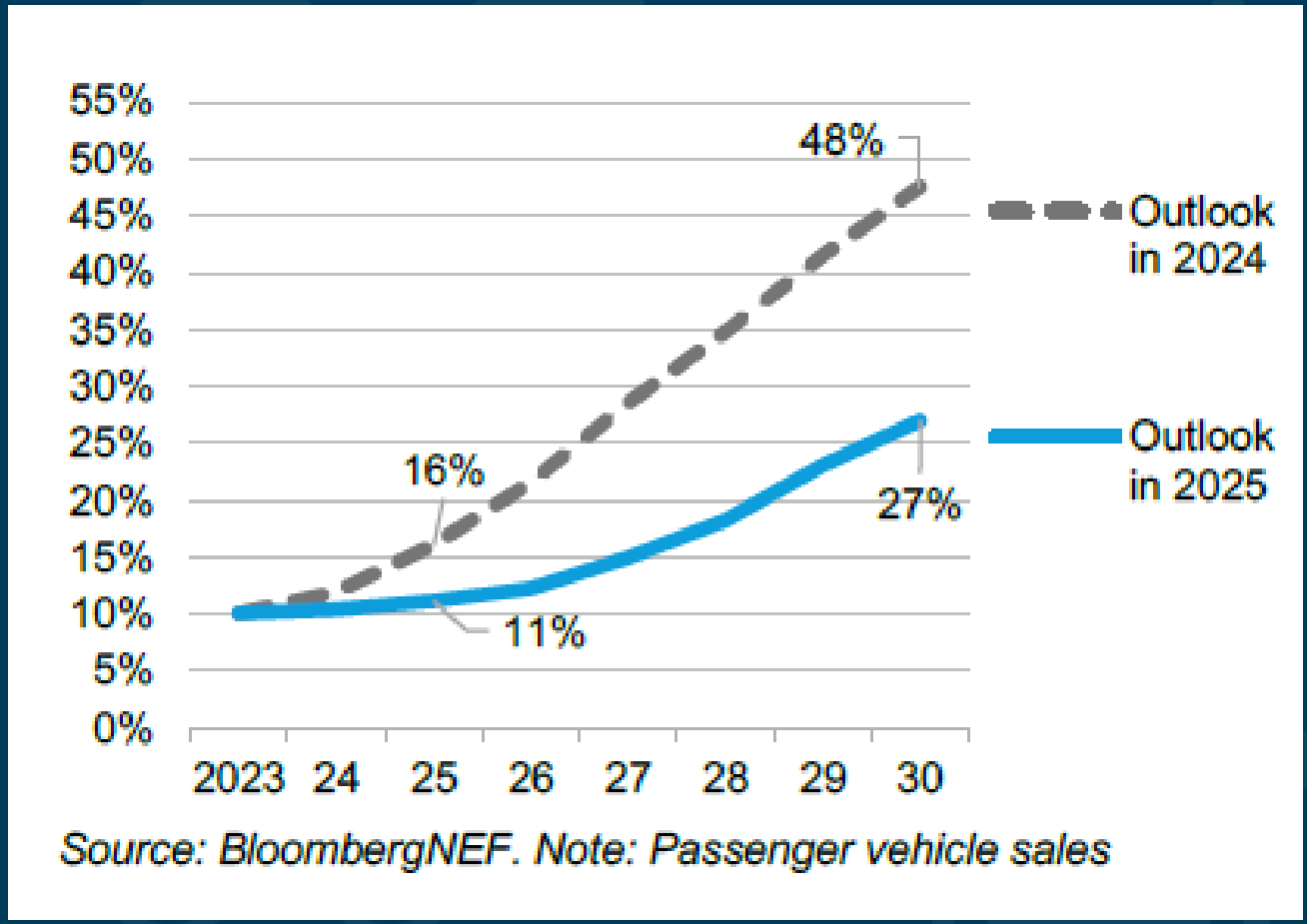
US PASSENGER EV SALES OUTLOOK

- The US passenger EV adoption outlook is now much lower as EV policies and support are being rolled back.
- Passenger EVs sales in the US is projected to rise from 1.6 million in 2025 to 4.1 million in 2030
- In 2030 there will be 27% sales increase



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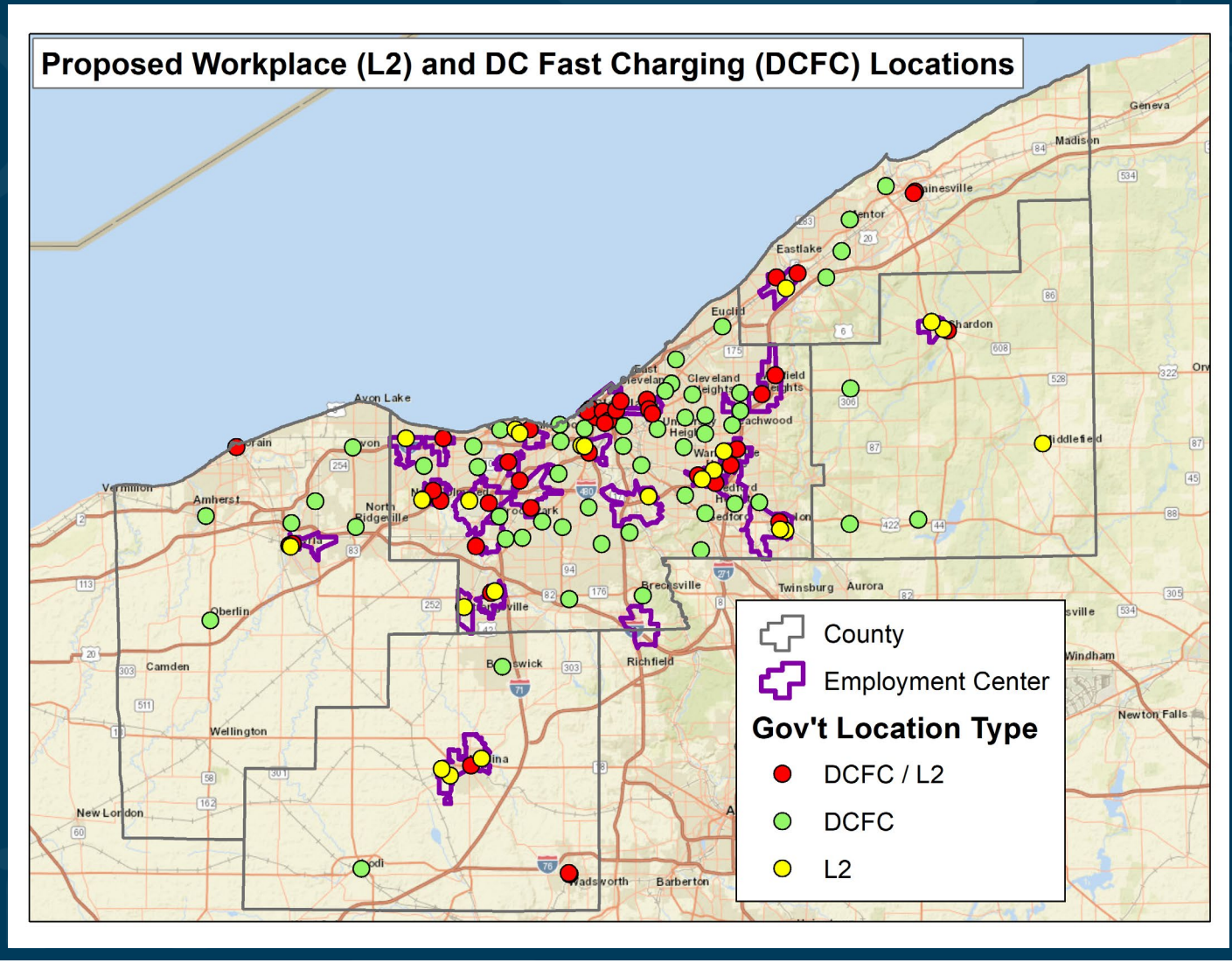
NOACA EV CHARGING STATION SITE PLAN



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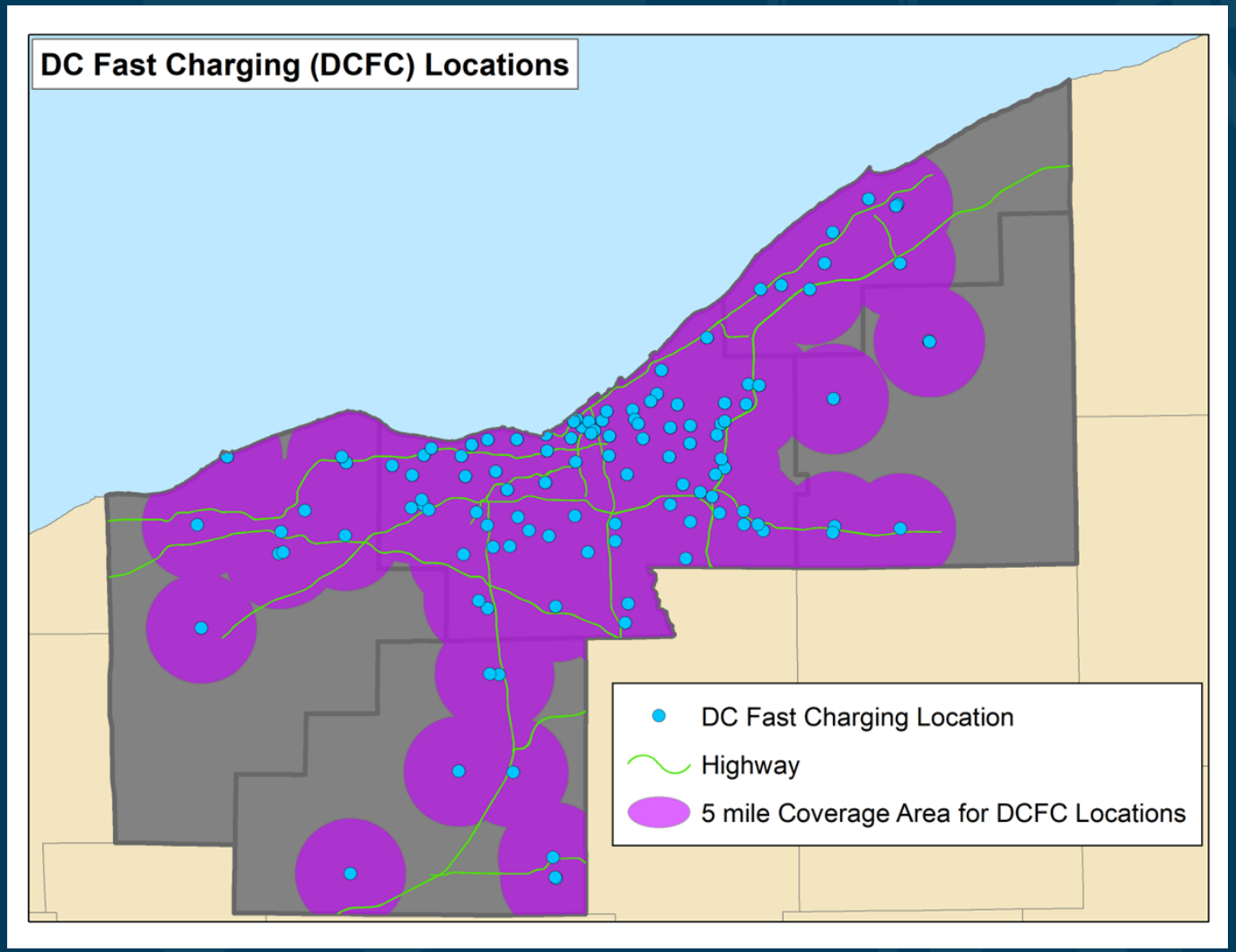
EV CHARGING PORTS ACCESSIBILITY

Charging station location distribution objective is to mimic the current gas station distribution



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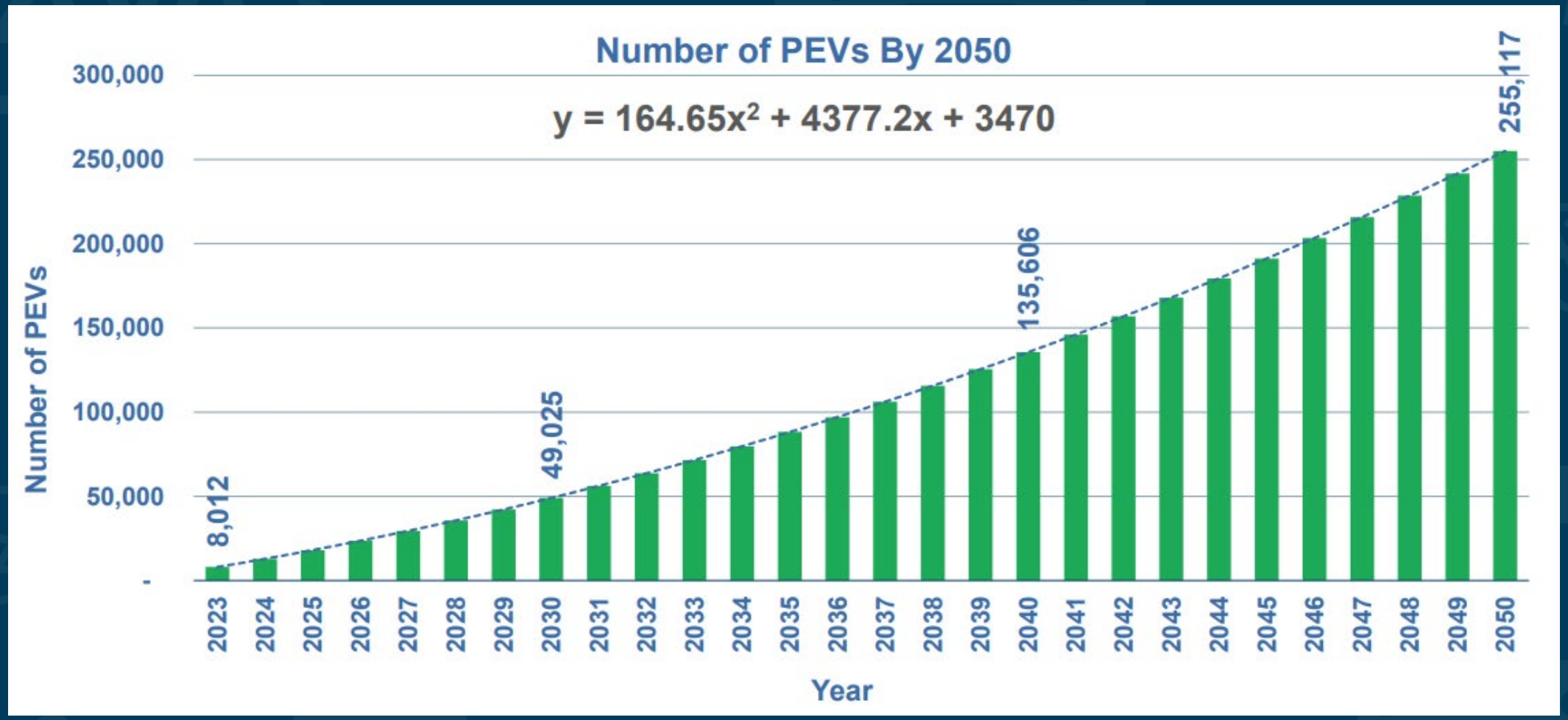
ESTIMATED NUMBER OF EVS BY 2050



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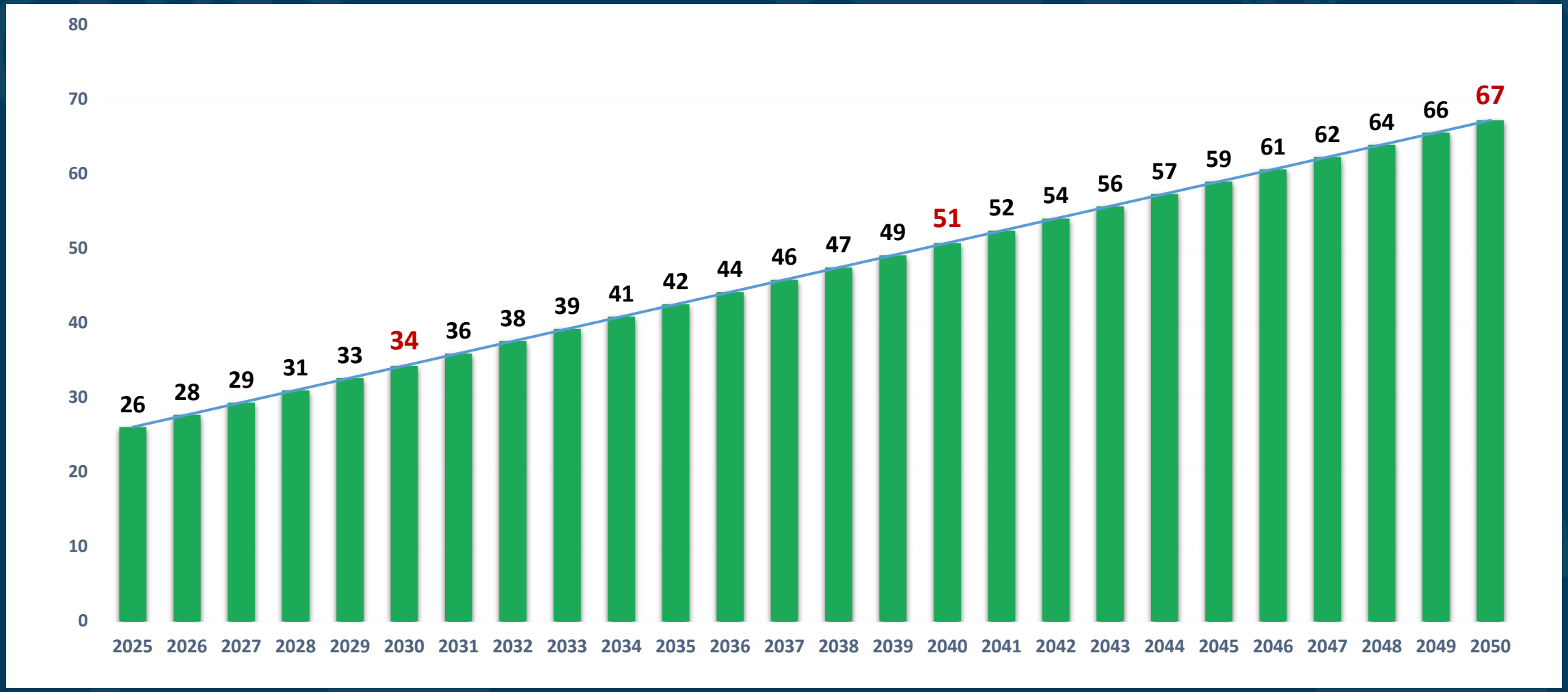
ESTIMATED NUMBER OF L2 PORTS BY 2050



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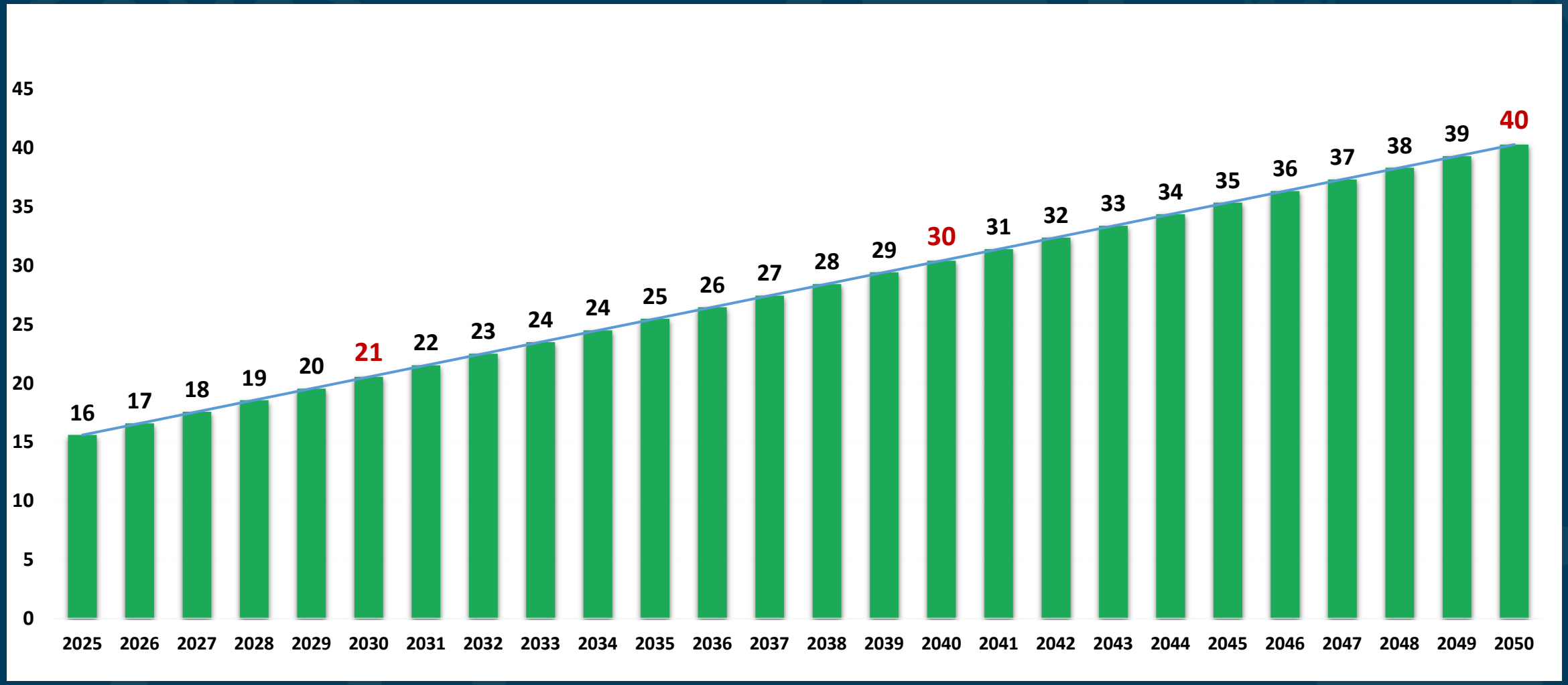
ESTIMATED NUMBER OF DCFC PORTS BY 2050



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ESTIMATED REQUIRED BUDGETS

NOACA Region		
PEV and AC Level 2 Projections by 2050		
Number of PEVs	Number of Required AC Level 2 Stations	Accumulated Total Cost (Period of 2025 - 2050)
255,117	1,211	$38 million

NOACA Region		
PEV and DCFC Stations Projections by 2050		
Number of PEVs	Number of Required DCFC Stations	Accumulated Total Cost (Period of 2025 - 2050)
255,117	727	$92 million

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NOACA EV CHARGING STATIONS PROGRAM DETAILS

Phase	Source of Funds	Fund Amount in Million Dollars	Number of Sites	Number of L2	Number of DCFC	Local Match
1	CMAQ	4.14	40	54	19	0%
2	CFI Grant	15	84	154	178	20%
Total		**19.14**	**124**	**208**	**197**	**20%**

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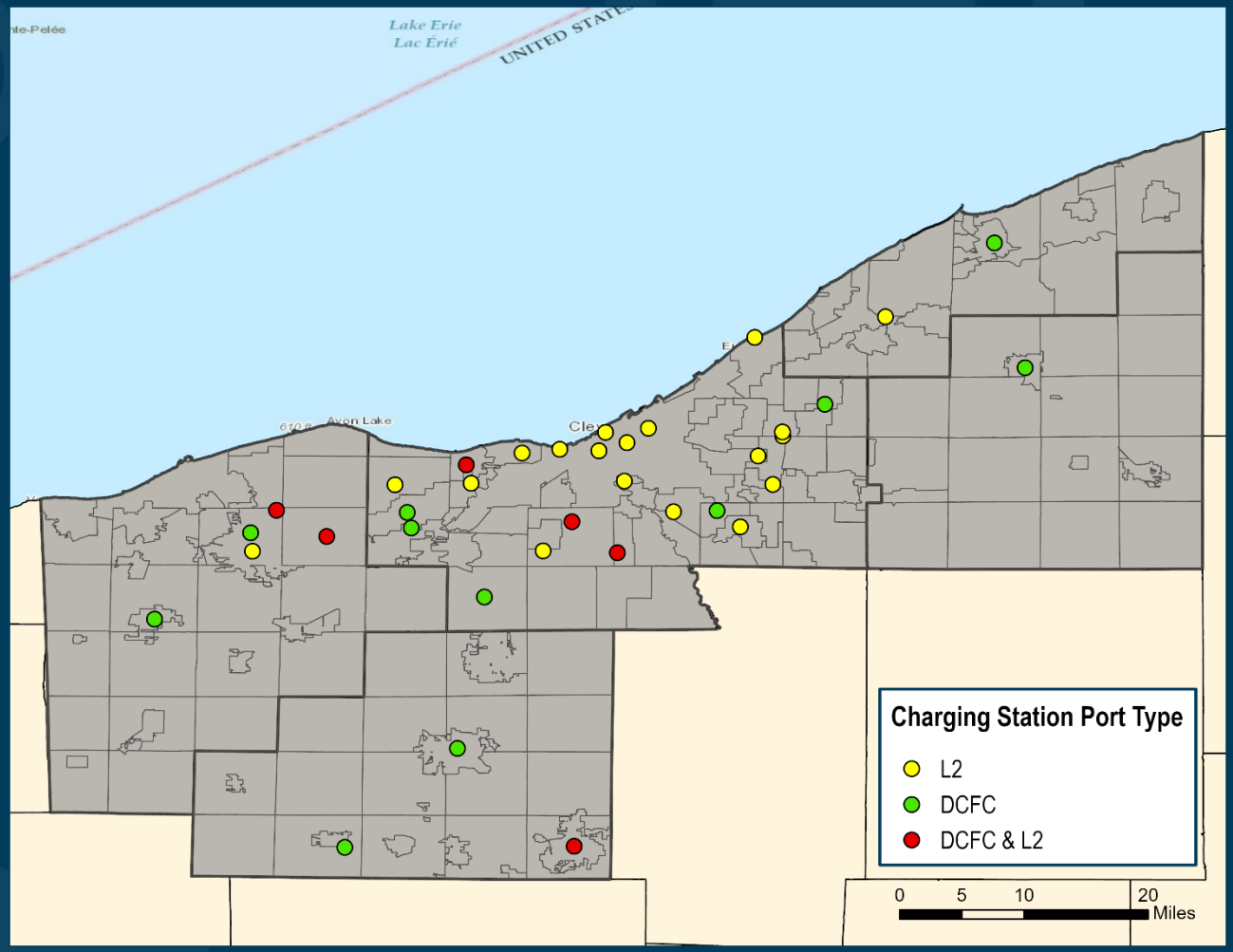
CURRENT LOCATIONS – PHASE 1



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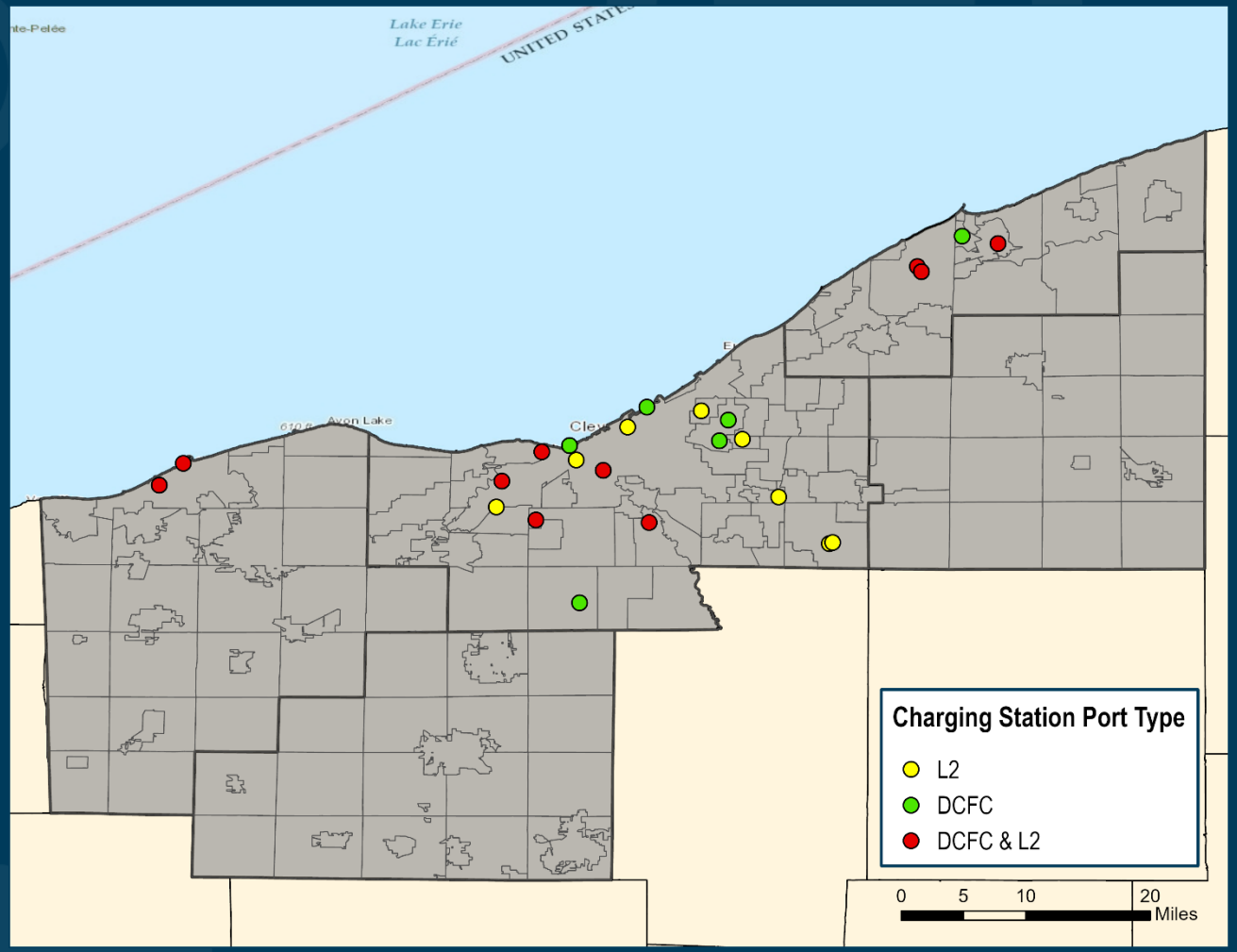
PROPOSED LOCATIONS – PHASE 2



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NOACA will **strengthen** regional cohesion, **preserve** existing infrastructure, and **build** a sustainable multimodal transportation system to **support** economic development and **enhance** quality of life in Northeast Ohio.

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