

CTA Bus Fleet Electrification

Illinois Commerce Commission Policy Session

January 8, 2020



33% of U.S. transit buses are committed to convert to zero emissions by 2045.

Seattle

100% zero-emissions powered by renewable energy by 2040 (~1,600 buses)

Chicago

100% electric by 2040 (1,860 buses)

New York City

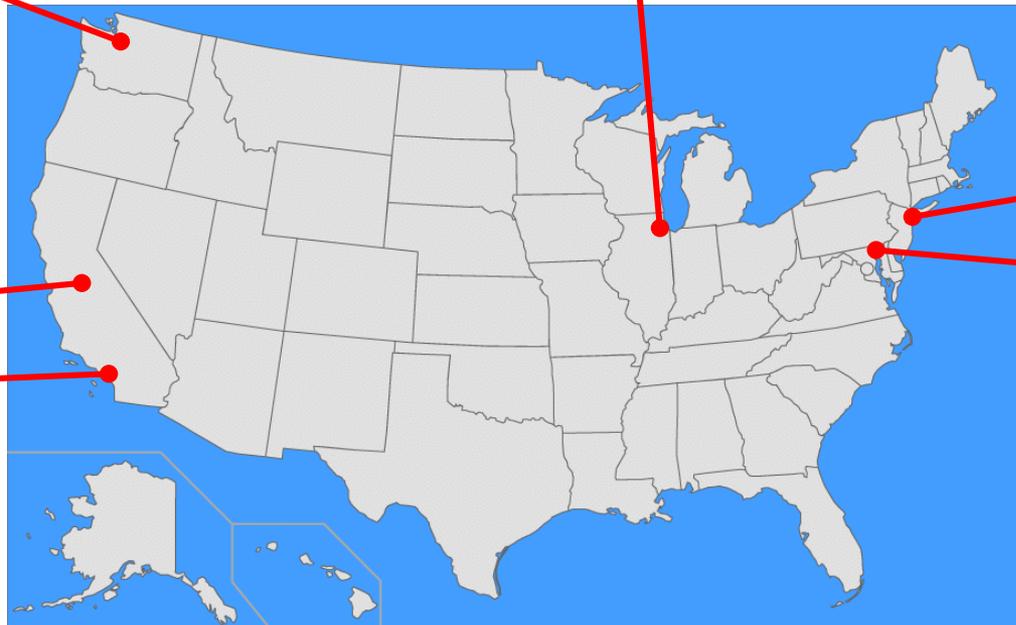
100% electric by 2040 (~5,700 buses)

California

100% zero-emissions by 2040 (~14,000 buses)

Los Angeles

100% zero-emissions by 2030 (~2,300 buses)



Philadelphia

>95% hybrid or electric by 2021 (~1,500 buses)

Within the next year (or so), CTA will have 25 electric buses.

CTA e-bus fleet	In service 2014-2019	In service 2020-	In service 2020-
Manufacturer	New Flyer		Proterra
Number purchased	2		20+
Charging location	Bus garages	On-route	On-route
Battery capacity	300 kWh	250 kWh	440 kWh
Range	100 miles (run 80)	75 miles (run ??)	>100 miles (run ??)
Charger power	100 kW ("slow")	300 kW ("fast")	450 kW ("fast")
Service times	AM & PM rush	24/7	24/7
Service routes	Flexible	Fixed: Midway routes	Fixed: #66 Chicago



What will it take to electrify CTA's entire bus fleet? For reference...

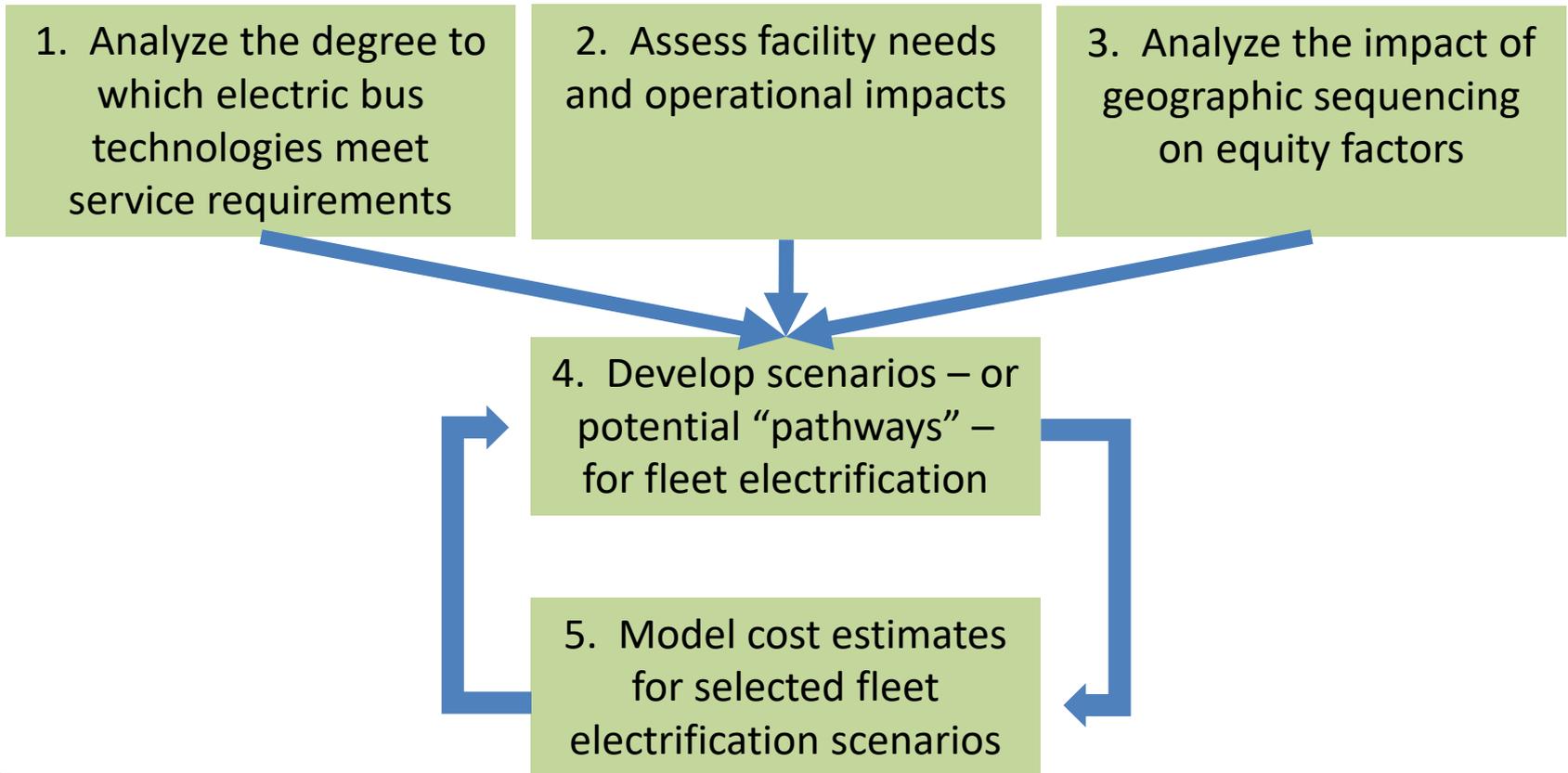
December 15, 2019 press release regarding the NYC MTA's 2020-2024 Capital Plan:

- The MTA plans to invest **\$1.1 billion to modify depots for electric bus operations, and to purchase 500 electric buses**, including replacement buses and some additional buses.
- The program enables the MTA to **acquire only electric buses beginning in 2029**.
- Future all-electric buses will be deployed in neighborhoods across the five boroughs, after **depots are upgraded to accommodate the new technology**.

Where and how will buses charge?



CTA is conducting a feasibility study for full-fleet electrification.



This is just the beginning...

