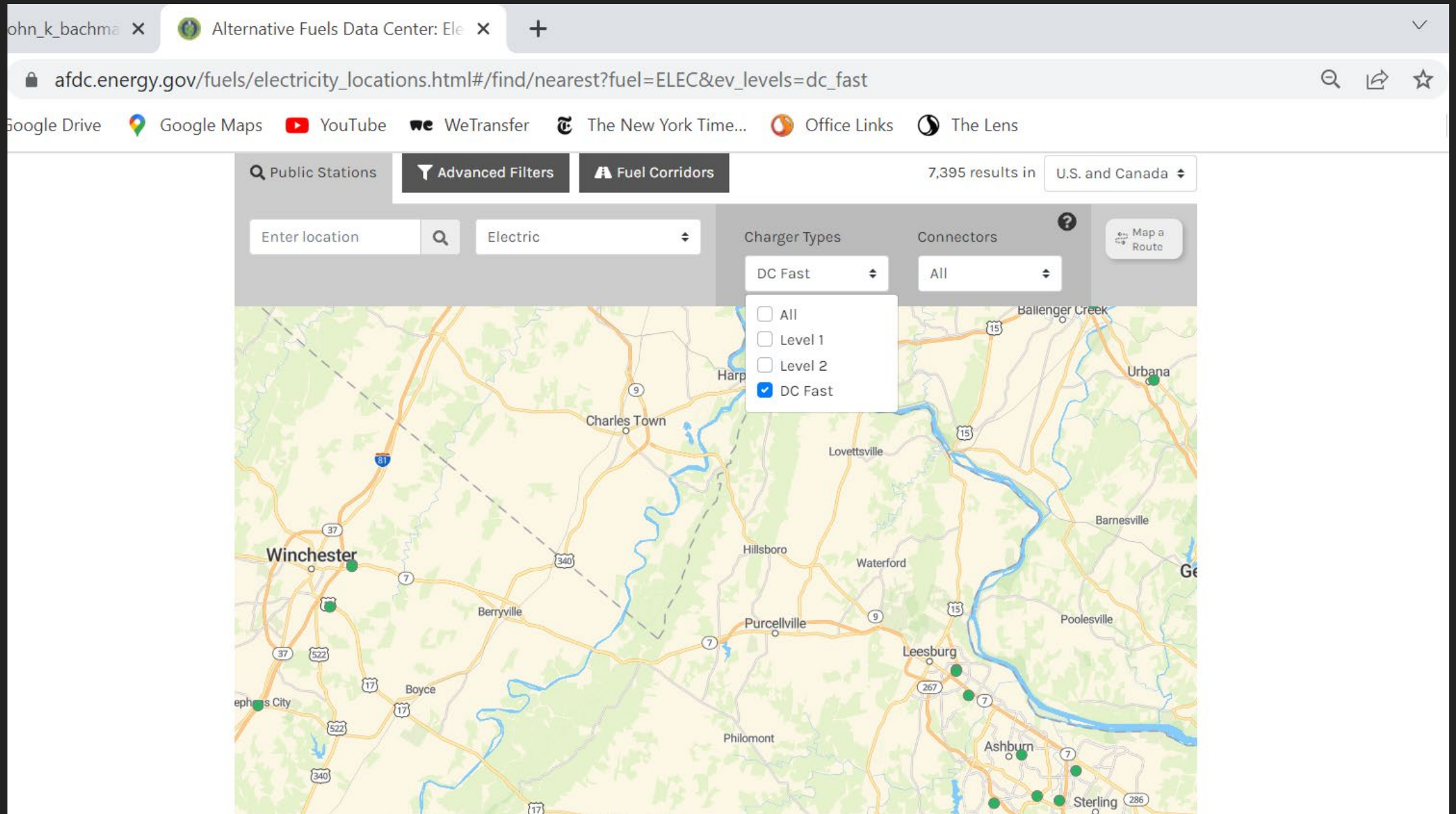
The advent of electric vehicles: what does it mean for local jurisdictions?

- Why electrify?
  - To lower your carbon footprint
  - To remain competitive
  - To attract tourism
- How do local jurisdictions electrify transportation?
  - By facilitating the rollout of private electric vehicles
  - By shifting to electric vehicles fleets

Location of chargers in northern Loudoun County



How to enable personal EV rollout?

Building Your EV Action Plan

Stantec is a leader in EV charging infrastructure, having already enabled the delivery and assessment of more than 7,000 chargers across North America. We can help support EV adoption in your community, maximizing the benefits of EV usage while minimizing the costs borne by the local authority. Taking into account local and state regulatory frameworks, we project ownership rates, determine the need for charging facilities, and formulate a strategy for delivering chargers in partnership with employers, real estate developers, charging companies and other private firms. The EV action plan we can prepare for your community will have the following key elements:

OVERARCHING DELIVERY STRATEGY:

Striking the right balance between use of the public right-of-way vs. incentivizing public charger delivery on commercial properties.

PARTNERSHIPS:

Identifying local, regional, and national organizations that can help deliver EV infrastructure.

PHASED INFRASTRUCTURE INVESTMENT PLAN:

Prioritizing locations where chargers are needed most today and thoughtfully expanding access over time, using analytics and public engagement.

POLICY RECOMMENDATIONS:

Identifying the changes to your regulatory framework—including permitting, zoning, and design guidelines—needed to support charger delivery and the creation of partnerships around EV-readiness.

COORDINATION:

Engaging with utilities to ensure grid readiness and recommendations for a resilient charging network, in addition to communicating with developers around EV infrastructure investments.

DESIGN REQUIREMENTS AND INCENTIVES:

Merging EV infrastructure investments and incentives with community vision around mobility, use of right-of-way, and sustainability goals.

OUTREACH AND EDUCATION:

Helping constituents understand EV technology and the changes in user behavior that come with its adoption (e.g., charging while grocery shopping vs. filling up the tank at a gas station).

Steps for analyzing the feasibility of an EV charger project

1. Site selection study
2. Selection of technical option
3. Cost estimate
4. Cashflow analysis
5. Project delivery model
6. Prefeasibility report

Other tasks associated with EV charging

Achieving Your Vision for the Future

Creating an action plan is just the first step on this journey. Our multi-disciplinary and solutions-focused team can also support you as you consider electrifying your own municipal fleet and upgrading infrastructure design standards to support EV rollout. Our integrated services throughout the project lifecycle include:

VEHICLE FLEET TRANSITION PLANNING
Functionality analysis, financing options, vehicle availability research, logistics planning.

TECHNICAL GUIDANCE
Specifications and requirements around charging station access, capacity, technology compatibility, payment, mobile applications, and mapping.

FINANCING/FUNDING ANALYSIS
Identification and pursuit of federal, state, and utility grants and loans for installation of EV charging infrastructure.

POWER SYSTEM DESIGN AND GRID UPGRADES
EV charger upgrades to ensure smooth operation during the transition to EVs.

SITE DESIGN AND PERMITTING
Civil and environmental permitting, traffic analysis, signing and striping, electrical and structural engineering.

SOCIAL AND ENVIRONMENTAL IMPACT ANALYSIS
Impacts on air quality and GHG with a focus on prioritizing equitable deployment of clean mobility solutions.

PROCUREMENT SUPPORT
RFI/RFP/RFQ management, contractor qualification and selection, vendor/shop/field inspection, QA inspections, and logistics support.

CONSTRUCTION
Constructability reviews, construction oversight, schedule management, safety, contractor coordination.

REGULATORY GUIDANCE
Regulatory framework development that is adaptable and merges
EV charging policies and design guidelines.

LIFECYLE AND DISPOSAL ANALYSIS
Technical and cost analysis for safe disposal of e-waste from new technologies.