

# **Census Data and Regional Analysis for Electric Vehicle Charging Infrastructure Strafford Regional Planning Commission Completed for NHDES 3/9/2018**

## **Overall Analysis Approach**

- Identify employment hotspots in the Strafford MPO region: end-points for significant numbers of commute trips.
- Identify locations of large regional employers
- Identify high-volume destinations for consistent trip purposes (e.g. hospitals)
- Identify general locations of highest benefit for new EV charging infrastructure.

\*\*Assume current and future EV users have charging capacity at their homes and are looking for destinations that have access to public charging stations.

## **Regional Description and Statewide Perspective**

The densest employment areas exist along primary regional corridors (US4, Spaulding Turnpike/NH16, NH108, and NH125). These corridors are also part of the National Highway System (NHS). The Spaulding Turnpike connects directly to I-95 which is currently part of the federally designated alternative fuels highway network. The Spaulding turnpike is eastern New Hampshire's gateway to tourism attractions in the Lakes and North Country. The Spaulding Turnpike is not currently part of the alternative fuels highway network but parallels I-93 (the capital corridor) which has greater access to EV charging infrastructure. Information from the Alternative Fuels Data Center shows a large coverage gap between I-95 and I-93, with most existing EV stations in the region provided by private organizations to benefit their own customers/employees. Improving these two corridors together would yield two primary benefits:

- Improve access for EV users to northern tourism attractions along the I-93 and NH16 corridors
- Provide better access and incentives for commuters traveling between the seacoast and the capital corridor

## **Census Analysis of Regional Employment**

Using the *On The Map* tool from the U.S. Census, we (SRPC staff) analyzed primary job density within county sub-divisions (municipalities) of the Strafford MPO planning area. Rochester, Somersworth, Dover, and Durham contain the greatest concentration of total primary jobs in the region. The majority of jobs in these municipalities are in general retail, manufacturing, education, and health care.

The Strafford region is directly adjacent to the Rockingham MPO region and Interstate 95, which connects to the northern Boston Metro area. I95 is a major commuting route for work and recreation trips to and from Metro Boston. The Strafford region and the greater NH Seacoast are growing and strengthening the connection to Boston. EV charging infrastructure should be installed strategically to incentivize EV trips for destinations in the Strafford and Rockingham MPO regions and tourism destinations in the lakes and White Mountains.

## **Support for Potential EV Infrastructure Locations**

### Locations in Dover

- Dover C&J and Park N' Ride
- Dover Transportation Center

- Access to COAST regional public transportation
- Liberty Mutual
- Wentworth Douglas
- Strafford County Complex
- Dover downtown – concentration of civic, commercial, and residential uses in region’s largest city, is already an active destination and walkable community center that encourages park-once-and-walk habits, Cocheco waterfront development and other ongoing infill projects will increase this trend into the future
  - McConnell Center
  - Parking garage

#### Locations in Somersworth

- Major commercial and employment corridors on NH9 and NH108
  - Velcro
  - High density of medical facilities
- Somersworth downtown – actively pursuing multiple projects for redevelopment of downtown, and proximity to downtown Berwick increases likelihood of their shared downtown as a regional destination

#### Locations in Rochester

- Frisbee Memorial Hospital
- Rochester Business parks
  - E.g. Granite State Business Park (larger employer – specialized industrial)
  - Granite Ridge (major shopping and employment center located on NH11, which serves as a secondary route to Lake Winnepesaukee and the White Mountains)
- Rochester downtown – civic and commercial buildings create a central destination in the region’s second largest city and encourage a park once and walk environment

#### Locations in Durham

- UNH-Durham transportation center – connects to intermodal transportation opportunities and has proximity to Durham’s downtown and UNH
  - Amtrak
  - Wildcat Transit
  - CMAQ project to upgrade rail station= future dedicated intercity bus access
- UNH – Region’s largest employer
  - “A” lot parking used by students, faculty, and staff, and for regional athletic events.

#### Important Sites Adjacent to the Strafford MPO Region

- Portsmouth C&J Park N’ Ride

### **Phase II Development**

The locations above represent “phase 1” priorities in the Strafford region for the development of EV charging infrastructure. The NH125 corridor is the only other north-south NHS highway other than the Spaulding Turnpike. NH125 provides an important route for freight and inter-regional commuters between Rochester and US101 in Epping. Communities along NH125 in the Strafford region are seeing

strong job growth and residential development. For example, the Town of Barrington has identified the intersection of NH9 and NH125 as an opportunity for future town center type development over the next 5-10 years. The NH125 corridor represents a “phase 2” priority for EV charging access in the region. Continuing infrastructure connectivity up NH16 and NH11 north of Rochester (e.g. in Milton, Wakefield, or Farmington) can fill in gaps in service between our larger centers and the lakes/mountains regions

The Town of Durham and UNH have identified the area near the US4 and Main Street interchange as a possible opportunity for collaborative “research park” style development that could include UNH property near “West Edge” or private redevelopment of Goss property

The Town of Newmarket’s downtown has seen significant reinvestment in recent years and additional EV infrastructure could complement a park-once-and-walk environment in communal parking locations