# Long Distance Travel by Electric Cars from Blacksburg Virginia

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#### Introduction

With the impending advent of the moderately-priced Tesla Model-3 ~200-miles-range battery-electric car (BEV) in 2018-9, the recent installation of Tesla Superchargers extending outward from Blacksburg Virginia will allow Blacksburg drivers of the Model-3 to travel to major destinations. The cost for using Tesla Superchargers is included in the price of the vehicle.

(http://www.plugincars.com/tesla-model-3)

(https://www.teslamotors.com/findus#/bounds/49.38,-66.94,25.82,-124.39?search=supercharger&name=us)

In 2017 drivers can lease one of the likely three available ~200-miles BEVs to allow driving to moderate distances from Blacksburg. Then, when the lease is finished in 2019, drivers can lease or buy the Tesla Model 3 to enable long-distance driving. The three ~200-miles BEVs that will likely be available for lease in 2017 are:

• The Chevrolet Bolt EV (<a href="http://www.chevrolet.com/bolt-ev-electric-vehicle.html">http://www.chevrolet.com/bolt-ev-electric-vehicle.html</a>)



- The Hyundai IONIQ (<a href="http://www.hyundainews.com/us/en/media/pressreleases/44685/hyundai-motor-introduces-ioniq-the-first-car-to-offer-a-choice-of-three-electrified-powertrains">http://www.hyundainews.com/us/en/media/pressreleases/44685/hyundai-motor-introduces-ioniq-the-first-car-to-offer-a-choice-of-three-electrified-powertrains</a>)
- Nissan LEAF replacement (<a href="http://www.hybridcars.com/ids-concept-foreshadows-60-kwh-2018-nissan-leaf">http://www.hybridcars.com/ids-concept-foreshadows-60-kwh-2018-nissan-leaf</a>)

## **Long-Distance Travel Using Tesla Superchargers**

By 2017 these long-distance BEVs may be able to use Tesla Superchargers, enabling long-distance driving with them. (http://cleantechnica.com/2015/09/27/some-non-tesla-evs-may-finally-get-tesla-supercharger-access/).

When the Tesla Model 3 is available in 2018 for lease/buy, drivers of it in Blacksburg will be able to make the following long-distance trips in it by using the Tesla Superchargers listed below:

- Blacksburg to Richmond VA:
  - Lexington VA: Holiday Inn Express, 880 N. Lee Hwy, 6 stations, 84.4 miles from Blacksburg
  - o Glen Allen VA: 9950 Brook Road, 8 stations, 131.6 miles from Lexington VA
- Blacksburg to Washington DC:
  - Lexington VA: Holiday Inn Express, 880 N. Lee Hwy, 6 stations, 84.4 miles from Blacksburg
  - o Strasburg VA: Strasburg Denny's, 119 Hite Lane, 6 stations, 109.2 miles from Lexington VA
  - Bethesda MD: Bethesda-Montgomery Mall, 7101 Democracy Blvd, 2 stations, 78.6 miles from Strasburg VA
- Blacksburg to Hagerstown MD:
  - Lexington VA: Holiday Inn Express, 880 N. Lee Hwy, 6 stations, 84.4 miles from Blacksburg

- Strasburg VA: Strasburg Denny's, 119 Hite Lane, 6 stations, 109.2 miles from Lexington VA
- Hagerstown MD: 495 Prime Outlets Blvd, 6 stations, 60.2 miles from Strasburg VA

#### Blacksburg to Burlington NC:

- o Wytheville VA: Holiday Inn Express, 165 Malin Drive, 6 stations, 52.1 miles from Blacksburg
- Burlington NC: Alamance Crossings, 1080 Piper Lane, 8 stations, 135.2 miles from Wythville Va

#### Blacksburg to Asheville NC:

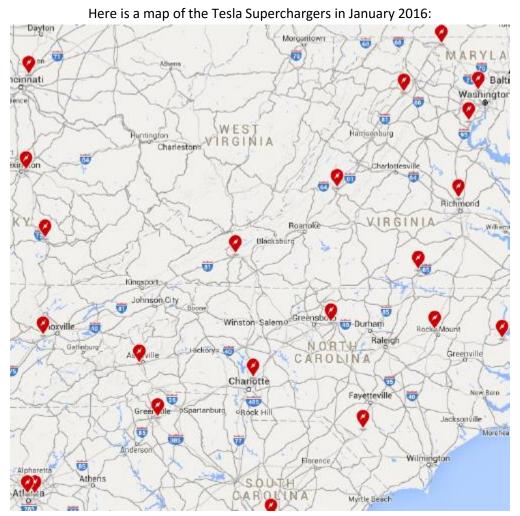
- o Wytheville VA: Holiday Inn Express, 165 Malin Drive, 6 stations, 52.1 miles from Blacksburg
- o Asheville NC: Ashville Outlets, 800 Brevard Road, 8 stations, 173.2 miles from Wytheville VA

#### Blacksburg to Charlotte NC:

- o Wytheville VA: Holiday Inn Express, 165 Malin Drive, 6 stations, 52.1 miles from Blacksburg
- Charlotte NC: Cochran Commons, 2720 W. Mallard Creek Church Road, 8 stations, 134.4 miles
  from Wytheville VA

#### Blacksburg to Atlanta GA:

- Wytheville VA: Holiday Inn Express, 165 Malin Drive, 6 stations, 52.1 miles from Blacksburg
- Charlotte NC: Cochran Commons, 2720 W. Mallard Creek Church Road, 8 stations, 134.4 miles from Wytheville VA
- Greenville SC: Hilton Garden Inn, 108 Carolina Point, 8 stations, 104.7 miles from Charlotte NC
- o Atlanta GA: Atlantic Station, 1380 Atlantic Drive NW, 10 stations, 146.2 miles from Greenville SC



There probably will be many more in this area by 2018.

### **Long-Distance Travel Using Level-3 Fast Charging Stations**

There are two types of level-3 charging stations: CHAdeMO (<a href="https://en.wikipedia.org/wiki/CHAdeMO">https://en.wikipedia.org/wiki/CHAdeMO</a> ) for Asian BEVs and CCS (<a href="https://en.wikipedia.org/wiki/Combined\_Charging\_System">https://en.wikipedia.org/wiki/Combined\_Charging\_System</a> ) for US and European BEVs.

#### • Blacksburg to Richmond VA:

- Lexington VA: Hampton Inn Lexington, 401 E Nelson St, CHAdeMO/CCS, 83 miles from Blacksburg
- Richmond VA: South Crenshaw Parking Deck, 7 South Crenshaw Ave, CHAdeMO/CCS, 135.8
  miles from Lexington VA

#### • Blacksburg to Charlottesville VA:

- Lexington VA: Hampton Inn Lexington, 401 E Nelson St, CHAdeMO/CCS, 83 miles from Blacksburg
- o Charlottesville VA: 100 E Water St, CHAdeMO/CCS, 68.8 miles from Lexington VA

#### Blacksburg to Winston-Salem NC:

- Winston-Salem NC: Modern Nissan, 5795 University Pkwy, CHAdeMO/CCS, 118.4 miles from Blacksburg
- There are many level-2 fast-charging stations at location east and south of Winston-Salem.
- One could go on to Atlanta via level-2 fast-charging station in the Charlotte NC and Greenville SC areas.

There are many other fast-charging stations in this area, as shown in <a href="http://www.plugshare.com">http://www.plugshare.com</a>:



These are Superchargers, CHAdeMO and CCS charging stations.

(https://en.wikipedia.org/wiki/CHAdeMO)

(https://en.wikipedia.org/wiki/Combined Charging System CCS)

http://www.roperld.com/science/ElectricCarsMusings.pdf