



**Date:** December 1, 2014

**To:** Thomas J. Bonfield, City Manager  
**Through:** Keith Chadwell, Deputy City Manager  
**From:** Tobin L. Freid, City-County Sustainability Manager  
**Subject:** License Agreement between the City of Durham and Brightfield Transportation Solutions to install a DC Fast Charger in parking lot 32

### **Executive Summary**

Brightfield Transportation Solutions (BTS) is requesting to enter into a public-private partnership to site a next-generation, fast electric vehicle charging station (DC Fast Charger) in parking lot 32 (10 space lot on Chapel Hill Street at Ramseur Street). The charger would be available to the public 24/7 and users would need to pay to use the station. BTS would assume all responsibility for the costs associated with procuring, siting, installing, and maintaining the equipment during the ten-year license agreement. There would be no negative financial impact on the City. Durham would join the ranks of cities across North Carolina that have DC Fast Chargers available to the public, forwarding the goals established in the City-County Electric Vehicle and Charging Station Plan adopted in December 2011.

### **Recommendation**

It is recommended that City Council authorize the City Manager to execute the License Agreement with Brightfield Transportation Solutions to install a DC Fast Charger in parking lot 32 (Chapel Hill Street at Ramseur Street).

### **Background**

Electric vehicles are a new, but growing technology that can help our community reduce pollution and greenhouse gas emissions. One limitation of electric vehicles (EVs) is that the range that they can travel is limited by the battery capacity. To encourage people to buy and drive electric vehicles, policy experts agree that it is very important to have electric vehicle charging stations (EVCS) located in areas where people want to drive. Durham currently has over 25 stations available to the public (2 City, 12 County), and the remaining eleven (11) are privately owned but available to the public). The existing charging stations are Level 2 chargers – chargers that use 240v electricity and can charge a vehicle in 6-8 hours. These chargers cost less than \$5,000 to purchase. The newest technology is called DC Fast Chargers that can rapidly charge a vehicle to 80% in less than an hour; thus, greatly reducing charging time. This provides an ideal situation where people are traveling over a longer distance in less time. DC Fast Chargers cost about \$35,000 which is significantly more than Level 2 chargers.

About a year ago, BTS approached the Sustainability Office with the offer of a public-private partnership to install charging stations downtown at no cost to the City. Under their model, the City provides the location and BTS provides a service to EV drivers coming to downtown Durham. Their initial plans involved installing solar panels, Level 2 and DC Fast Chargers; however, difficulties were finding a suitable location in the downtown district. In the

meantime, BTS received a grant from the NC Department of Transportation to install just the DC Fast Chargers across the state. It is simpler to locate one fast charger that would serve 3 parking spaces than to site the larger solar project with multiple EVCSs. BTS would incur all costs associated with permits, planning, purchasing, installing, metering, electrical usage, and maintenance of the unit. The City would allow BTS to put the charging station in a public lot (provided approval of all necessary plans, permits, etc.) and collect \$1 a year from BTS. The parking spaces will be marked as "preferred EV" but will not be restricted to EVs. BTS will charge users for charging at their station.

The Sustainability Office worked closely with General Services, Transportation, the City Attorney's Office and BTS to identify potential locations and evaluate the challenges and benefits of the project. The preferred location is lot 32 because it is very visible, is located near many visitor destinations, and is one of the few free public parking lots downtown.

### **Issues/Analysis**

DC Fast Chargers are essential for people who are trying to go longer distances in less than a day, but they are not the ideal charging system for people who have the time to charge more slowly. From an environmental standpoint, the ideal charging scenario is to charge at night when there is excess electricity and demand is low. However, because people will have to pay to use this DC Fast Charger, it is hoped that only people who really need it will use it.

### **Alternatives**

- 1) City Council authorizes the City Manager to execute the License Agreement with Brightfield Transportation Solutions.
- 2) City Council does not authorize the City Manager to execute the License Agreement with Brightfield Transportation Solutions.
- 3) The City could install a DC Fast Charger on its own at a cost of approximately \$50,000 to \$75,000.

### **Financial Impact**

Brightfield Transportation Solutions would install and maintain the equipment at their cost so this agreement would not impact the City's finances. BTS would pay the City \$1/year to provide the service. Having this equipment in the City Center may draw additional visitors to Durham, but it is impossible to assess the financial value to the City and it is not anticipated to be significant. If the equipment has to be moved during the period of the License based on City decisions to use the site for other purposes, the City would be responsible for paying the cost to move the equipment to another, similar location. The cost to move the equipment is difficult to predict without knowing where it might be moved to and under what conditions. Estimates range between \$10,000 and \$20,000, but the City would have some control over those costs based on new site selection.

### **SDBE Requirements**

SDBE requirements are not applicable for this Agreement.

### **Attachments**

License Agreement

cc: Mark Ahrendsen, Director, Department of Transportation  
Joel Reitzer, Director, Department of General Services  
Thomas Leathers, Manager, Parking Systems, Department of Transportation