

Planning Commission Environment Committee review of the MITRE Corporation's *Electric Vehicle Charging Infrastructure Recommendations to Fairfax County*

Summary of Committee Recommendations
October 21, 2015

The following summary is identical to that which is presented on pages 40 through 43 of the Environment Committee's review document.

The Environment Committee recommends the following:

1. In light of considerable uncertainties regarding how electric vehicle technology will be embraced and adopted by the general public, a focus on EV-ready design, as recommended by MITRE, would be appropriate.
2. The committee also agrees with MITRE's emphasis on electric vehicle charging efforts for residential uses.
3. The committee notes that Policy Plan guidance addressing electric vehicle charging was adopted by the Board of Supervisors on July 1, 2014 as part of a broader Plan amendment addressing the county's green building policy. This policy guidance is general in nature, does not specify any particular quantitative thresholds and provides an emphasis on electric vehicle charging for residential uses. The committee supports the adopted Plan guidance and does not see a need to augment it with new Plan text, as this guidance is broad and general enough to be adaptable to changing circumstances.
4. The Plan guidance noted above should be supplemented with more specific suggestions regarding implementation. These suggestions could be communicated through informal reports/guidance such as this paper and/or through prototype proffer guidance that can be provided to zoning applicants for their consideration. There should be future refinements of these suggestions as EV technology and adoption develop.
5. In light of charging times associated with the various levels of charging, the committee recommends that there be an emphasis on EV-ready design for Level 2 charging, although it is not the committee's intent to preclude consideration of any particular level of charging.
6. The suggested implementation approaches should be offered to zoning applicants for their consideration for incorporation within their proffer packages or within development conditions that would be agreeable to the applicants. Prototype proffers/development conditions should be prepared that can be offered to applicants for their consideration. Such prototypes should not be viewed as expectations; rather, EV-related commitments

that are pursued by applicants should instead be evaluated more broadly as components of overall proffer/development condition packages.

7. As noted above, the committee agrees with the MITRE Corporation's recommendation for an emphasis on electric vehicle-ready design. While commitments from applicants to the provision of charging stations should be encouraged (particularly for residential development proposals), it is not clear that any particular percentage of "seeding" of charging station supply would be appropriate at this time.
8. The committee would support, consistent with MITRE's recommendation, efforts to ensure that electrical rooms would be sized such that electrical capacity could, in the future, be provided to support electric vehicle charging for 100 percent of the parking area for residential uses. However, the committee recommends that considerable flexibility be applied to this question; the county should welcome alternative ideas as may be presented by applicants, particularly if reasonable concerns arise regarding possible unintended consequences and/or costs of this idea.
9. For offices and other uses, the committee recommends that the question of a specific threshold for sizing of electrical rooms be left open at this time and that applicants be asked to identify specific thresholds within the commitments they prepare through the zoning process. This question could be revisited in the future based on experiences in pursuing such commitments and any further guidance that may be available in the future regarding rates of electric vehicle adoption and demand for workplace or other nonresidential charging.
10. The committee does not recommend that the quantitative targets for installation of conduit (and, by extension, the sizing of the electrical distribution system) that have been recommended by the MITRE Corporation for application in Tysons (100 percent for residential uses and 35 percent for office uses) be established at this time. Nor does the committee view that there is an easy answer to the question of what percentage of any particular parking area should be provided with conduit and sizing of the electrical distribution system to facilitate the eventual installation of EV charging stations. However, the following approaches could be pursued as suggestions to applicants as starting points for discussion:
 - For office and other nonresidential proposals, a linkage to applicable green building rating systems could be suggested; this would support and be integrated within broader green building commitments. However, the committee recommends that more ambitious efforts be suggested for parking facilities associated with hotels and transit opportunities.
 - For residential proposals and mixed use proposals with residential components where other charging opportunities would not be available, there are differing perspectives among committee members regarding suggestions that should be

made in regard to extent of EV-readiness in parking facilities, but there is consensus that, if percentage thresholds are to be suggested, they should be higher for residential proposals than nonresidential proposals.

- An alternative approach would be to base the EV-readiness commitment to a survey that would be conducted at a time closer to building construction and occupancy than zoning approval. In that there are numerous challenges associated with this concept, it is not the committee's preferred approach, but the committee sees benefit in a hybrid approach through which relatively high thresholds of EV-ready design could be applied (e.g., 10 percent for certain residential and mixed use/residential proposals and two to five percent for nonresidential proposals) along with considerable flexibility to reduce these thresholds based on surveys conducted closer to the time of construction.
 - Prototype proffers should be developed based on the above recommendations. Staff should engage applicants in a discussion of EV-ready design, and the prototype proffers should be viewed as a starting point of this discussion that would, ideally, lead to commitments that would be tailored to the needs and circumstances associated with each application.
11. Levels of EV-readiness that are suggested as starting points for discussion, particularly for nonresidential uses, should not necessarily be the end points—the committee would like the county to promote this technology proactively and not simply pursue a least-common-denominator approach when negotiating proffer commitments with zoning applicants. To that end, the county should encourage, on a case-by-case basis, EV-ready design efforts for nonresidential uses beyond what may be linked to a particular green building rating system (e.g., two percent coverage), recognizing that flexibility will be needed in all negotiations.
 12. Policy guidance should not address charging station design or locational issues. Any such concerns would best be considered on a case-by-case basis during the zoning process, considering the site-specific context.
 13. In regard to MITRE's recommendation for coordination with other area jurisdictions on standardization of connections of charging stations, the committee recommends no action at this time. However, the committee recommends that county staff remain active in regional reviews of electric vehicle issues.
 14. With respect to data collection, the committee recommends that the county review experiences with electric vehicle registrations in the county, the provision of charging stations, information from electric vehicle charging equipment suppliers regarding how these charging stations are being used and experiences with charging stations that may be installed per proffers or development conditions. The committee also recommends that the county coordinate with electric utilities in regard to any data needs they may have

from the county that may assist them in identifying any potential localized stresses to the electrical system.

15. Policy guidance should not address dedicated charging spaces at office facilities, models of provision of electric vehicle charging, levels of access to charging stations, zoning provisions, incentives, establishment of charging stations at county-owned parking facilities, peak hour charging, removal of obsolete charging stations or establishment of a pilot project. However, the committee does recommend follow-up consideration of zoning issues and charging opportunities at county-owned parking facilities (see below).
16. Proffers or development conditions should not be crafted in a manner that could require the retention of obsolete technology on a site.
17. The committee recommends that the electric vehicle charging policy issue be revisited in several years in order to learn from experiences and adjust the informal guidance that will have been applied based on these experiences and industry projections available at that time.

The Environment Committee has chosen to focus its recommendations on matters relating to Comprehensive Plan policy and its implementation. However, there are a number of issues for which the committee has recognized a desire for follow-up considerations. These are as follows:

- A. The committee sees a need for direct consideration of electric vehicle charging within the Zoning Ordinance and recommends the identification of this issue on the Zoning Ordinance Amendment Work Program. The committee appreciates staff's development of "Applicable Zoning Provisions for Electric Vehicle Charging Stations" as necessary guidance regarding conditions under which charging stations can be considered to be accessory uses as opposed to principal auto-oriented uses but feels that more formalized Zoning Ordinance provisions are needed. There is a need to ensure that, in distinguishing between accessory uses and principal uses, appropriate boundaries are defined that provide reasonable protections while facilitating electric vehicle charging technology. In addition to the question of accessory vs. principal use, there is a need to consider the relationship of EV parking spaces to overall minimum parking requirements (i.e., should an EV space count towards the minimum parking requirement or not?) County staff is also aware of concerns about a provision within the guidance document that establishes that Non-Residential Use Permits are required for all proposed charging stations. The committee sees some level of urgency to the need for a Zoning Ordinance amendment and recommends that this Zoning Ordinance review be pursued sooner rather than later.
- B. There should be consideration of opportunities for providing publicly-accessible electric vehicle charging at county facilities where there would likely be a demand for charging. Experiences of other localities that have provided such opportunities should be considered.

- C. County staff should remain active in regional reviews of electric vehicle issues.
- D. The county should review experiences with electric vehicle registrations in the county, the provision of charging stations, information from electric vehicle charging equipment suppliers regarding how these charging stations are being used and experiences with charging stations that may be installed per proffers or development conditions.
- E. The county should coordinate with electric utilities in regard to any data needs they may have from the county that may assist them in identifying any potential stresses to the electrical system.