

# ELECTRICAL

POWER & INTEGRATED BUILDING SYSTEMS

2020 PROFILE OF  
THE ELECTRICAL  
CONTRACTOR



# CONTRACTOR

SPECIAL REPORT ON  
PURCHASE AND LEASING  
OF VEHICLES

**2020 “ELECTRICAL CONTRACTOR MAGAZINE PROFILE”  
DATABASE REPORT**

**ELECTRICAL  
CONTRACTORS:  
THEIR OWNERSHIP,  
PURCHASE AND LEASE OF  
VEHICLES  
PLANS TO PURCHASE OR  
LEASE BUSINESS VEHICLES**

**INCLUDING ESTIMATES BASED ON THE 2018 COUNTY BUSINESS PATTERNS**

**A SPECIAL REPORT PREPARED BY  
RENAISSANCE RESEARCH & CONSULTING, INC.**

**FOR:**

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## KEY FINDINGS

86% of electrical contracting firms have a fleet of one or more vehicles, a statistically significant decline from two years ago when it was 93%. Note that this percentage fluctuates – *four* years ago it was 88%. About 14% of the firms answering the vehicles questions report having *no* business vehicles.

- Based on findings from the 2014 Profile study, but not repeated since, we learned that a number of factors go into being “vehicle-less”: some respondents were unable to specify the type or types of vehicles in their fleet but said that they had used a company vehicle to get from job to job. Some said that they themselves are assigned to a single location, so that there is no need (for a vehicle) to travel from job to job. In addition, about one-quarter said that they used a personal vehicle to get from job to job. All of this can be revisited in the future. However, based on these earlier findings, we believe that vehicle usage among electrical contractors is higher than the 86% reported.
  - The decline in fleet ownership is driven by 1-9 employees, which is due to a statistically significant decline in Medium/heavy pick-up trucks. Future research might also include questions about short-term lease/rental to capture instances where a given type of vehicle is needed only on a project-by-project basis.

About one half of the electrical contractors that took this portion of the survey said that their firm is considering the purchase or lease of a business vehicle in the next 1-3 years, statistically unchanged from two years earlier.

- About 15% of the electrical contractors that took this portion of the survey said that their firm is considering the purchase or lease of a specifically electric or hybrid business vehicle in the next 1-3 years. This question was not asked in 2018 and therefore cannot be trended.

By company size: 88% of firms with 1-9 employees and 83% of firms with 10+ employees report fleets with one or more of the vehicles included in the survey. Compared with two years earlier, fleet ownership declined among firms with 1-9 employees (to 88% from 95%). However, there was no statistically significant change among firms with 10+ employees.

### Types of Vehicles:

- Among small firms, (1-9 employees) Vans/panel trucks and Light pick-up trucks are most common.
- Among larger firms, Vans/panel trucks and Light pick-up trucks are also most common (about 7 in 10 larger firms report having either or both in their fleets. Almost 5 in 10 large firms report having Medium/heavy pick-up trucks.
- Vehicles are far more likely to be bought than leased.

**Number of Vehicles:** On average, firms report having 6.3 vehicles, statistically unchanged from two years ago.

**Estimate of the Number of Vehicles:** Based on the survey, ELECTRICAL CONTRACTOR magazine estimates that the universe of electrical contractors had a total fleet of between about **332,000 and 456,000 vehicles in 2020 at the 90% level of confidence.**<sup>Y</sup>

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<sup>Y</sup> As noted in the Methodology section, we believe that the actual number of vehicles is closer to the top of the range, or possibly even higher because this mean does not include fleets with more than 50 vehicles owned by a small number of the companies in the survey. This was done in order to achieve a tighter confidence band for the estimate. Further, we do not believe that this estimate includes personal vehicles, so that the actual number of vehicles used for business by electrical contractors may well be even higher than the top of the range.



## METHODOLOGY

This report focuses on electrical contractors' current fleet ownership, purchase and lease/rental of vehicles. The survey also asks about plans to purchase or rent/lease business vehicles in the next 1-3 years and separately, whether those vehicles will be electric or hybrid.

The survey was conducted by internet and postal mail among a random sample of ELECTRICAL CONTRACTOR subscribers. In addition, in 2020 as in 2018, about 100 members of the ELECTRICAL CONTRACTOR Subscriber Research Panel also participated in the survey. The field period for the survey began on February 21, 2020 and ran through April 13, 2020, which was the deadline for the July 2020 article. A total of 1635 completed the survey during that time period.

In 2020, we offered those in the mail sample a choice of either participating in the survey online, through a link, or to continue to receive a paper survey by postal mail. A total of 144 completed the survey by mail and another 53 completed the survey online.

The data were not weighted for two reasons – since the proportion of the total attributable to the print list was so low, weighting would distort the total statistics. The other reason was that comparing the unweighted 2020 results with the 2018 weighted results showed very little difference among the total sample.

Each respondent who received the survey through the internet was sent up to four follow-up emails. However, follow-up mailings were not made to non-responders in the postal mail sample. An incentive was offered for participation in the survey: For each completed survey, ELECTRICAL CONTRACTOR would contribute \$5 to charity, up to a total of \$10,000. In addition, as was the case in 2018, the magazine also offered a sweepstakes drawing for one of five \$150 Amazon e-gift cards.

The internet option was first introduced in 2004.

As was the case since 2004, the survey was produced in different versions. Starting with the 2008 Profile study, there were four versions of the survey, which differed from each other on fewer than 10 questions. The first 3 pages were common to all versions while the differences among the versions occurred on the last page. The major difference was that in the Internet portion respondents were *required* in almost all cases to have percentage questions add to 100%.

This report is drawn from Versions 4 – vehicles in fleet, purchased, rented/leased as well as future plans to purchase business vehicles, including those that are specifically electric or hybrid. The base size of Version 4 is 224.

As in the past, statistical testing was done at the 90% level of confidence.

For this report, the estimates of market size are based on the 2018 County Business Patterns (CBP).

**This research was conducted by New York, NY-based Renaissance Research & Consulting, Inc. ([www.renaiss.com](http://www.renaiss.com)), an independent marketing research firm that has, as one of its specialties, market research for the construction industry.**

## Methodology Notes

**In 2020, as was the case with the 2018 Profile Study, the projected number of vehicles in fleet will be based only on those with between 1 and 49 vehicles.**

- Reason for the Change: This is being done to dampen the effect that outliers will have on the mean or average, so that the projections will have a smaller confidence band around them.
  - **Further, since we do not believe that the number of vehicles includes *personal* vehicles, the actual number of vehicles used electrical contractors may well be even higher than the top of the range.**

## DETAILED FINDINGS

### Types of Vehicles in Respondent’s Fleet

The vast majority of electrical contracting firms (86%) have business fleets.

- Among small firms, (1-9 employees) Vans/panel trucks and Light pick-up trucks are most common.
- Among larger firms, Vans/panel trucks and Light pick-up trucks are also most common (about 7 in 10 larger firms report having either or both in their fleets.) Almost 5 in 10 large firms report having Medium/heavy pick-up trucks.
- Other Business vehicles receive fewer mentions.

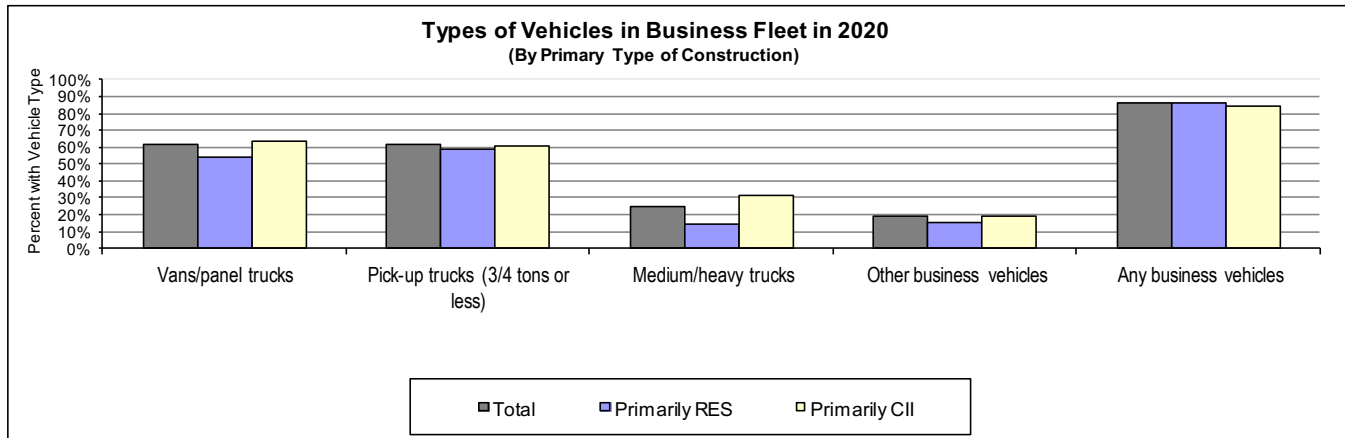
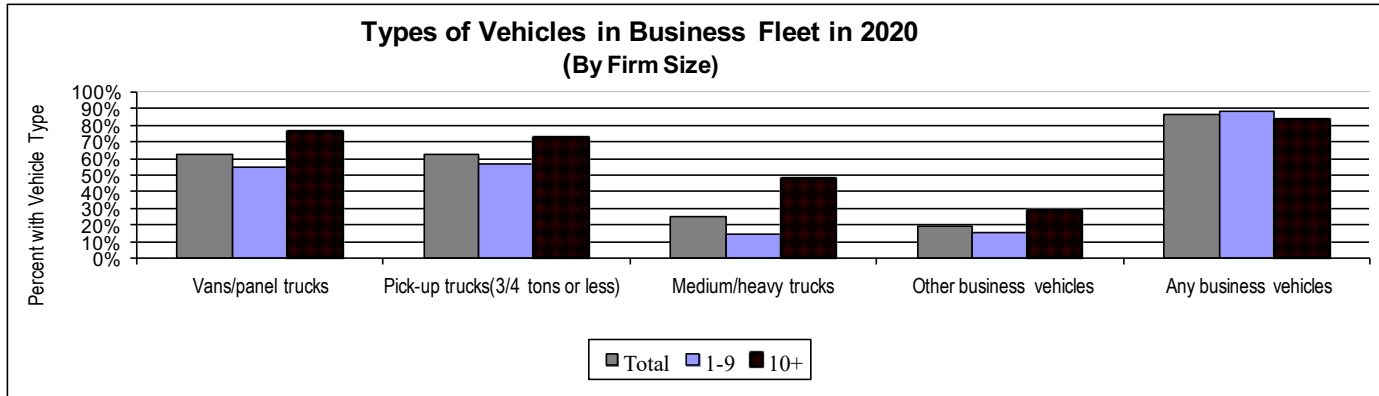
| <b>TYPES OF VEHICLES IN BUSINESS FLEET (2020)</b> |                            |            |            |
|---|----------------------------|------------|------------|
|   | <b>Number of Employees</b> |            |            |
|   | <b>Total</b>               | <b>1-9</b> | <b>10+</b> |
|   | (224)                      | (153)      | (71)       |
|   | %                          | %          | %          |
| Vans/panel trucks                                 | 62                         | 55         | <76        |
| Pick-up trucks (3/4 ton or less)                  | 62                         | 57         | <73        |
| Medium/heavy trucks                               | 25                         | 14         | <48        |
| Other business vehicles                           | 19                         | 15         | <28        |
| Any business vehicles                             | 86                         | 88         | 83         |

- As we’ve noted in earlier Vehicles Profile Breakout reports, the fact that not all firms report owning these business vehicles is not new<sup>1</sup>.

- 
- <sup>1</sup> We explored this in some depth as part of the 2014 Profile Study and found that about 3% were unable to specify the type or types of vehicles in their fleet but said that they used a company vehicle to get from job to job. An additional 3% said that they themselves were assigned to a single location, so that there is no need (for a vehicle) to travel from job to job. There was a small remaining group of about 2% - 3% where the reason for not having a business vehicle was unknown at this point.
  - We also found that about one-quarter of the total who were asked about vehicles used a personal vehicle to get from job to job. Future Profile studies might consider adding questions about use of personal vehicles for business purposes, such as what accommodations, if any, are needed for electrical contractors to use a personal vehicle for business purposes.



The types of vehicles by number of employees and by primarily type of work performed is illustrated below



There are two statistically significant differences compared with two years earlier.

- Among the total sample, fewer firms report having (Any) Business vehicles in their fleet.
- Fewer firms with 1-9 employees report fleets with (Any) Business vehicles possibly driven by the statistically significant decline in Medium/heavy trucks in their fleets.

| TYPES OF VEHICLES IN BUSINESS FLEET (Trended) by Number of Employees |       |       |       |       |      |      |
|--|-------|-------|-------|-------|------|------|
|  | Total |       | 1-9   |       | 10+  |      |
|  | 2020  | 2018  | 2020  | 2018  | 2020 | 2018 |
|  | (224) | (214) | (153) | (157) | (71) | (57) |
|  | %     | %     | %     | %     | %    | %    |
| Vans/panel trucks  | 62    | 66    | 55    | 62    | 76   | 76   |
| Pick-up trucks (3/4 ton or less)                                     | 62    | 59    | 57    | 56    | 73   | 67   |
| Medium/heavy trucks  | 25    | 28    | 14    | <21   | 48   | 47   |
| Other business vehicles  | 19    | 17    | 15    | 16    | 28   | 21   |
| Any business vehicles  | 86    | <93   | 88    | <95   | 83   | 88   |

- Compared with two years earlier, fewer firms that work primarily on residential projects report fleets with Vans/panel trucks and/or (Any) Business Vehicles compared with two years earlier.

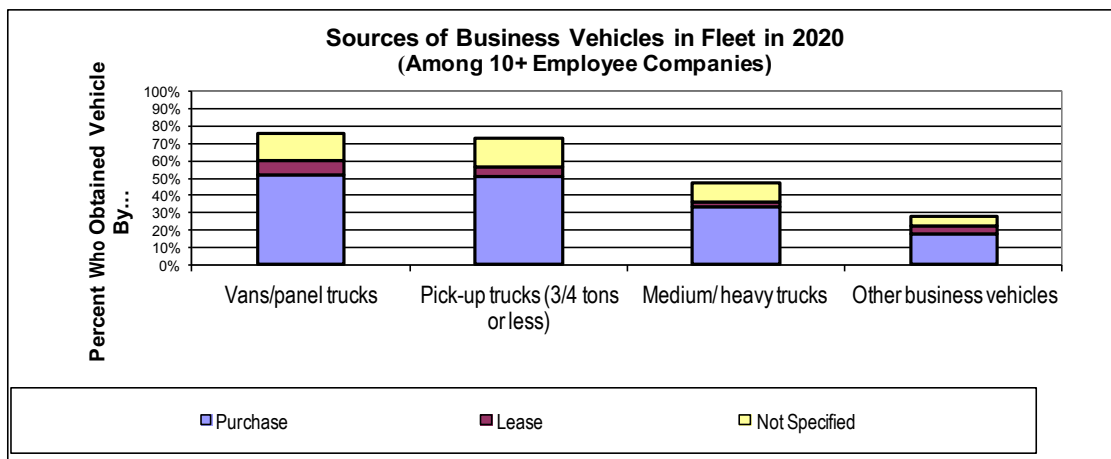
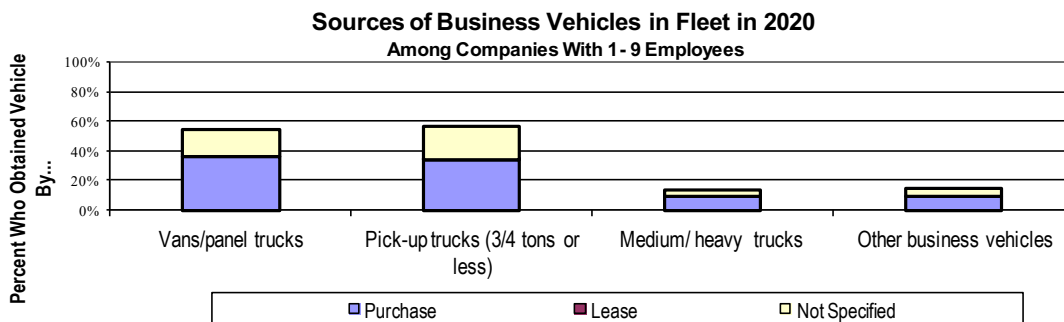
| TYPES OF VEHICLES IN BUSINESS FLEET (Trended) by Source of Revenue |             |      |       |      |
|--|-------------|------|-------|------|
|  | Residential |      | CII   |      |
|  | 2020        | 2018 | 2020  | 2018 |
|  | (85)        | (92) | (108) | (90) |
|  | %           | %    | %     | %    |
| Vans/panel trucks  | 54          | <68  | 64    | 61   |
| Pick-up trucks (3/4 ton or less)                                   | 59          | 48   | 61    | 69   |
| Medium/heavy trucks  | 14          | 18   | 31    | 40   |
| Other business vehicles  | 15          | 15   | 19    | 19   |
| Any business vehicles  | 86          | <97  | 84    | 91   |

**Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow**

### Sources of Business Vehicles in Fleet

Among companies with 1-9 employees, the vast majority of vehicles were obtained through purchase (bought).

Similarly, companies with 10+ employees are also most likely to have bought rather than to lease; however, they also lease at higher rates than smaller companies.



## Average Number of Business Vehicles in Respondent's Fleet: 2020

The 224 respondents who participated in this part of the survey reported having a combined business fleet of almost 1953 vehicles in 2020 (not shown).

- The average number of vehicles for each category and in total is statistically unchanged compared with two years earlier.

## Average Number of Business Vehicles in Respondent's Fleet: 2020

| VEHICLES IN BUSINESS FLEET (2020 Vs. 2018 Vs. 2016 Vs. 2014) |                        |                        |  |                            |   |                        |   |                        |
|--|------------------------|------------------------|--|----------------------------|---|------------------------|---|------------------------|
|  | In 2020                | In 2018                |  | In 2018                    |   | In 2016                |   | In 2014                |
|  | Can be compared        |                        |  | < -- Can be compared --- > |   |                        |   |                        |
|  | (224)                  | (214)                  |  | (214)                      |   | (363)                  |   | (372)                  |
|  | #                      | #                      |  | #                          |   | #                      |   | #                      |
| Vans/panel trucks  | 4.8 <sup>[6.7]**</sup> | 3.9 <sup>[5.1]**</sup> |  | 4.1 <sup>[6.3]</sup>       | = | 3.9 <sup>[8.8]</sup>   | = | 3.7 <sup>[6.9]</sup>   |
| Pick-up trucks(3/4 tons or less)                             | 3.9 <sup>[6.0]**</sup> | 3.4 <sup>[5.4]**</sup> |  | 5.3 <sup>[19.7]</sup>      | = | 5.9 <sup>[27.1]</sup>  | = | 5.0 <sup>[17.3]</sup>  |
| Medium/heavy trucks  | 3.6 <sup>[4.2]**</sup> | 2.7 <sup>[3.0]**</sup> |  | 2.7 <sup>[3.1]**</sup>     | = | 2.6 <sup>[2.8]**</sup> | = | 3 <sup>[4]**</sup>     |
| Other business vehicles                                      | 2.8 <sup>[4.3]**</sup> | 1.9 <sup>[2.3]**</sup> |  | 1.9 <sup>[2.4]**</sup>     | = | 1.9 <sup>[2.5]**</sup> | = | 2 <sup>[3]**</sup>     |
| Total **   | 6.3 <sup>[8.5]**</sup> | 5.2 <sup>[6.9]**</sup> |  | 5.2 <sup>[7.1]**</sup>     | = | 4.7 <sup>[6.2]**</sup> | = | 5.2 <sup>[7.1]**</sup> |

\*\* Expanding on what was done two years earlier, we used means (averages) that exclude 50+ vehicles for all vehicles categories. This was done out of caution and to reduce the level of uncertainty around estimates because a handful of very large firms can legitimately raise the average substantially, which then gets amplified when estimates involving the entire population are made.

As shown in the columns on the right, between 2014 and 2018, this restriction did not apply to all categories of vehicles.

Numbers in [ ] are standard deviations which are used in stat testing means over time

## Number of Business Vehicles in Respondent's Fleet by Key Subgroups

Larger electrical contracting firms are more likely to have higher numbers of each of the vehicles included in the survey, and by extension, to have a significantly higher average number of vehicles compared with firms with 1-9 employees. This finding is consistent with findings from two years ago (not shown).

In a similar vein, firms that work primarily on Commercial, Industrial, and Institutional (CII) construction are more likely to own Van/panel trucks and Light pick-up trucks as well as having significantly more vehicles, on average in their fleet compared to firms that work primarily on residential construction. The only difference from two years ago is that firms that worked on CII projects owned significantly more Medium/heavy pick-up trucks compared with firms that work primarily on residential projects.

| Number of Business Vehicles in Respondents Fleet by Subgroups (2020 Profile Study) |                        |                      |                         |                           |                       |
|--|------------------------|----------------------|-------------------------|---------------------------|-----------------------|
| 2020 - Mean Excluding Zero and 50+ Vehicles  | Total                  | Number of Employees  |                         | Revenue is Primarily From |                       |
|  |                        | 1-9                  | 10+                     | Residential               | CII                   |
|  | (224)                  | (153)                | (71)                    | (85)                      | (108)                 |
|  | #                      | #                    | #                       | #                         | #                     |
| Vans/panel trucks  | 4.8 <sup>[6.7]**</sup> | 1.7 <sup>[1.1]</sup> | <9.9 <sup>[8.6]</sup>   | 2.8 <sup>[3.5]</sup>      | <5.7 <sup>[7.3]</sup> |
| Light pick-up trucks (3/4 tons or less)  | 3.9 <sup>[6.0]**</sup> | 1.6 <sup>[1.3]</sup> | <7.9 <sup>[8.4]</sup>   | 2.3 <sup>[4.9]</sup>      | <5.6 <sup>[7.0]</sup> |
| Medium/heavy pick-up trucks  | 3.6 <sup>[4.2]**</sup> | 2.2 <sup>[3.1]</sup> | <4.4 <sup>[4.6]</sup>   | 2.6 <sup>[3.8]</sup>      | 3.0 <sup>[2.3]</sup>  |
| Other business vehicles  | 2.8 <sup>[4.3]**</sup> | 1.2 <sup>[0.6]</sup> | <4.7 <sup>[5.8]</sup>   | 1.2 <sup>[0.6]</sup>      | 2.8 <sup>[4.4]</sup>  |
| Total  | 6.3 <sup>[8.5]**</sup> | 2.7 <sup>[2.8]</sup> | <16.2 <sup>[10.4]</sup> | 4.0 <sup>[6.5]</sup>      | <7.6 <sup>[8.8]</sup> |

\*\* Mean is based on excluding firms with zero vehicles as well as firms with 50+ vehicles (see note on previous page)

**Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow. For further emphasis, the smaller numbers are shown in italics.**

Numbers in [ ] are standard deviations which are used in stat testing means over time

## Total Vehicles in Fleet -- All Industry Estimate

### Number of Vehicles in Fleet:

The 224 companies that responded to this portion of the survey, by themselves, reported having a total fleet of 1953 (not shown).

Based on the survey, ELECTRICAL CONTRACTOR magazine estimates that the universe of electrical contractors had a total fleet of between about **332,000 and 456,000 vehicles in 2020 at the 90% level of confidence.**<sup>Y</sup>

| <b>2020 Total Vehicles in Fleet – All Industry Estimate<br/>EXCLUDING FIRMS WITH 50+ VEHICLES</b> |   |   |  |  |  |
|---|---|---|--|--|--|
|   | Average Number<br>of Vehicles Per<br>Firm | Percent of EC<br>Firms with<br>Vehicles in<br>Fleet | Number of<br>EC Firms<br>(Source: 2018<br>CBP) | Number of EC<br>Firms with<br>Vehicles in<br>Fleet | Estimated<br>Number of<br>Vehicles in<br>Fleet |
| Vehicles in Fleet   |   | %   |  |  |  |
| Mean  | <b>6.30</b>                               | <b>86%</b>  | <b>72,784</b>                                  | <b>62,594</b>                                      | <b>394,344</b>                                 |
| Upper Estimate  | 7.29                                      | <b>86%</b>  | <b>72,784</b>                                  | <b>62,594</b>                                      | <b>456,312</b>                                 |
| Lower Estimate  | 5.31                                      | <b>86%</b>  | <b>72,784</b>                                  | <b>62,594</b>                                      | <b>332,375</b>                                 |

<sup>Y</sup> As noted in the Methodology section, we believe that the actual number of vehicles is closer to the top of the range, or possibly even higher because this mean does not include fleets with more than 50 vehicles owned by a small number of the companies in the survey. This was done in order to achieve a tighter confidence band for the estimate. Further, we do not believe that this estimate includes personal vehicles, so that the actual number of vehicles used for business by electrical contractors may well be even higher than the top of the range.

## Plans to Purchase or Lease Business Vehicles in the Next 1- 3 Years

In the 2020 Profile Study, electrical contractors that participated in this portion of the survey were asked if their company had plans to purchase or lease business vehicles in the next 1 – 3 years.

- As shown below, about one-half of firms are planning a near-term purchase or lease and one-half say that they are not planning to do so.
  - Firms with 10+ employees are about twice as likely to plan an acquisition compared with smaller firms (76% vs. 36%). Along the same lines, firms that work primarily on CII projects (these firms tend to be larger) are significantly more likely to be planning a vehicle purchase or lease in the next 1 to 3 years compared with firms that work primarily on residential projects.

| Whether Firm is Planning to Purchase or Lease Business Vehicles in the Next 1-3 Years |       |                     |               |                           |               |
|---|-------|---------------------|---------------|---------------------------|---------------|
| 2020 Profile Study  | Total | Number of Employees |               | Revenue is Primarily From |               |
|   |       | 1-9                 | 10+           | Residential               | CII           |
|   | (224) | (153)               | (71)          | (85)                      | (108)         |
|   | %     | %                   | %             | %                         | %             |
| Yes   | 49    | 37                  | <b>&lt;76</b> | 37                        | <b>&lt;58</b> |
| No  | 49    | <b>61&gt;</b>       | 24            | <b>61&gt;</b>             | 42            |
| No Answer/Not Sure  | 2     | <b>3&gt;</b>        | 0             | 2                         | 0             |

**Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.**

There are very few statistically significant differences compared with 2018 Profile results.

| Whether Firm is Planning to Purchase or Lease Business Vehicles in the Next 1-3 Years -- Trended |       |       |                     |       |               |      |                        |      |       |              |
|--|-------|-------|---------------------|-------|---------------|------|------------------------|------|-------|--------------|
|  | Total |       | Number of Employees |       |               |      | Revenue Primarily From |      |       |              |
|  |       |       | 1-9 Employees       |       | 10+ Employees |      | Residential            |      | CII   |              |
|  | 2020  | 2018  | 2020                | 2018  | 2020          | 2018 | 2020                   | 2018 | 2020  | 2018         |
|  | (224) | (214) | (153)               | (157) | (71)          | (57) | (85)                   | (92) | (108) | (90)         |
|  | %     | %     | %                   | %     | %             | %    | %                      | %    | %     | %            |
| Yes  | 49    | 49    | 37                  | 42    | 76            | 72   | 37                     | 47   | 58    | 53           |
| No   | 49    | 45    | 61                  | 52    | 24            | 24   | <b>61&gt;</b>          | 47   | 42    | 42           |
| No Answer/<br>Not Sure   | 2     | 6     | 3                   | 6     | 0             | 5    | 2.4                    | 7    | 0     | <b>&lt;6</b> |

**Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.**



## Plans to Purchase or Lease Electric or Hybrid Business Vehicles in the Next 1- 3 Years

All respondents who participated in this version of the survey were then asked if their company had plans to purchase or lease/rent specifically hybrid or electric business vehicles in the next 1 – 3 years. This question was not asked in 2018 and therefore cannot be trended.

- About 15% say that their firm is planning to acquire an electric or hybrid vehicle in the next three years. There are no statistically significant differences by analytical subgroups.

| <b>Whether Firm is Planning to Purchase or Lease Hybrid or Electric Business Vehicles<br/>in the Next 1-3 Years</b> |              |                            |            |                                  |            |
|---|--------------|----------------------------|------------|----------------------------------|------------|
| 2020 Profile Study  | <b>Total</b> | <b>Number of Employees</b> |            | <b>Revenue is Primarily From</b> |            |
|   |              | <b>1-9</b>                 | <b>10+</b> | <b>Residential</b>               | <b>CII</b> |
|   | (224)        | (153)                      | (71)       | (85)                             | (108)      |
|   | %            | %                          | %          | %                                | %          |
| Yes   | 15           | 14                         | 17         | 14                               | 14         |
| No  | 84           | 86                         | 79         | 84                               | 86         |
| No Answer/Not Sure  | 2            | 1                          | 4          | 2                                | 0          |