Release date: May 2016

Table E5. Electricity consumption (kWh) by end use, 2012

| All buildings  Building floorspace (square feet)  1,001 to 5,000  5,001 to 10,000  10,001 to 25,000  25,001 to 50,000  50,001 to 100,000  100,001 to 200,000  200,001 to 500,000  Over 500,000  Principal building activity  Education | 1,243<br>130 | 25     | 185      |          |          |          |     |     |        |         |     |
|--|--------------|--------|----------|----------|----------|----------|-----|-----|--------|---------|-----|
| 1,001 to 5,000 5,001 to 10,000 10,001 to 25,000 25,001 to 50,000 50,001 to 100,000 100,001 to 200,000 200,001 to 500,000 Over 500,000  Principal building activity   | 130          |        |          | 196      | 6        | 212      | 27  | 196 | 50     | 119     | 225 |
| 5,001 to 10,000<br>10,001 to 25,000<br>25,001 to 50,000<br>50,001 to 100,000<br>100,001 to 200,000<br>200,001 to 500,000<br>Over 500,000<br>Principal building activity  | 130          |        |          |          |          |          |     |     |        |         |     |
| 10,001 to 25,000<br>25,001 to 50,000<br>50,001 to 100,000<br>100,001 to 200,000<br>200,001 to 500,000<br>Over 500,000<br>Principal building activity   |              | 4      | 15       | 13       | 1        | 17       | 8   | 38  | 6      | 10      | 19  |
| 25,001 to 50,000<br>50,001 to 100,000<br>100,001 to 200,000<br>200,001 to 500,000<br>Over 500,000<br>Principal building activity   | 113          | 2      | 13       | 14       | 1        | 17       | 5   | 27  | 5      | 10      | 19  |
| 50,001 to 100,000<br>100,001 to 200,000<br>200,001 to 500,000<br>Over 500,000<br>Principal building activity   | 159          | 4      | 20       | 23       | 1        | 27       | 4   | 27  | 8      | 15      | 30  |
| 100,001 to 200,000<br>200,001 to 500,000<br>Over 500,000<br>Principal building activity  | 149          | 4      | 22       | 25       | 1        | 28       | 1   | 20  | 6      | 14      | 29  |
| 200,001 to 500,000 Over 500,000 Principal building activity  | 192          | 4      | 30       | 32       | 1        | 32       | 2   | 30  | 8      | 18      | 34  |
| Over 500,000  Principal building activity  | 190          | 3      | 28       | 34       | 1        | 35       | 2   | 27  | 6      | 21      | 33  |
| Principal building activity  | 180          | 2      | 34       | 31       | 1        | 32       | 2   | 20  | 6      | 18      | 34  |
|  | 130          | 1      | 25       | 24       | (*)      | 23       | 3   | 7   | 5      | 14      | 27  |
| Education  |              |        |          |          |          |          |     |     |        |         |     |
| Ludcation  | 134          | 3      | 26       | 20       | 1        | 23       | 1   | 12  | 6      | 23      | 19  |
| Food sales   | 61           | 1      | 2        | 3        | (*)      | 5        | 3   | 43  | 1      | 1       | 3   |
| Food service   | 82           | 1      | 9        | 9        | 1        | 5        | 13  | 33  | 2      | 1       | 6   |
| Health care  | 107          | 1      | 20       | 24       | (*)      | 18       | 2   | 6   | 5      | 10      | 20  |
| Inpatient  | 74           | (*)    | 17       | 13       | (*)      | 12       | 2   | 4   | 4      | 6       | 15  |
| Outpatient   | 33           | 1      | 3        | 11       | (*)      | 6        | (*) | 1   | 1      | 4       | 6   |
| Lodging  | 89           | 2      | 11       | 14       | 1        | 12       | 3   | 10  | 13     | 2       | 22  |
| Mercantile   | 207          | 4      | 27       | 36       | 2        | 41       | 2   | 56  | 5      | 7       | 28  |
| Retail (other than mall)   | 82           | 2      | 12       | 14       | (*)      | 21       | 1   | 15  | 2      | 3       | 13  |
| Enclosed and strip malls   | 124          | 2      | 15       | 22       | 2        | 20       | 1   | 41  | 3      | 4       | 15  |
| Office   | 253          | 6      | 34       | 63       | 1        | 43       | 1   | 8   | 11     | 49      | 39  |
| Public assembly  | 80           | 3      | 24       | 7        | (*)      | 10       | 1   | 7   | 2      | 5       | 21  |
| Public order and safety  | 21           | (*)    | 4        | 2        | (*)      | 4        | (*) | 1   | 1      | 2       | 6   |
| Religious worship  | 24           | 1      | 4        | 4        | (*)      | 3        | (*) | 1   | 1      | 1       | 8   |
| Service  | 37           | 1      | 5        | 4        | (*)      | 11       | (*) | 1   | 1      | 2       | 11  |
| Warehouse and storage  | 83           | 1      | 10       | 4        | (*)      | 25       | (*) | 14  | 2      | 5       | 23  |
| Other  | 56           | 1      | 8        | 5        | (*)      | 11       | Q   | 4   | 1      | 12      | 15  |
| Vacant   | 8            | (*)    | 1        | 1        | (*)      | 1        | Q   | (*) | (*)    | (*)     | 3   |
| Year constructed   |              |        |          |          |          |          |     |     |        |         |     |
| Before 1920  | 32           | 1      | 3        | 6        | (*)      | 6        | 1   | 4   | 1      | 3       | 7   |
| 1920 to 1945   | 64           | 1      | 9        | 10       | (*)      | 11       | 1   | 10  | 3      | 7       | 12  |
| 1946 to 1959   | 85           | 2      | 12       | 14       | (*)      | 15       | 2   | 12  | 3      | 7       | 17  |
| 1960 to 1969   | 147          | 3      | 20       | 22       | 1        | 26       | 3   | 21  | 7      | 16      | 28  |
| 1970 to 1979   | 171          | 3      | 23       | 29       | 1        | 29       | 5   | 26  | 7      | 17      | 30  |
| 1980 to 1989   | 234          | 5      | 41       | 38       | 1        | 39       | 4   | 34  | 9      | 23      | 40  |
| 1990 to 1999   | 213          | 5      | 33       | 32       | 1        | 35       | 5   | 38  | 8      | 19      | 37  |
| 2000 to 2003   |              |        |          |          |          |          |     |     |        |         | 20  |
| 2004 to 2007   | 111          | 2      | 17       | 18       | 1        | 20       | 2   | 17  | 4      | 12      | 20  |
| 2008 to 2012   | 111<br>97    | 2<br>2 | 17<br>14 | 18<br>14 | 1<br>(*) | 20<br>17 | 2   | 17  | 4<br>4 | 12<br>7 | 18  |

Table E5. Electricity consumption (kWh) by end use, 2012

|   | Total | Space<br>heat-<br>ing | Cool-<br>ing | Venti-<br>lation | Water<br>heat-<br>ing | Light-<br>ing | Cook-<br>ing | Refrig-<br>eration | Office<br>equip-<br>ment | Com-<br>puting | Other |
|---|-------|-----------------------|--------------|------------------|-----------------------|---------------|--------------|--------------------|--------------------------|----------------|-------|
| All buildings   | 1,243 | 25                    | 185          | 196              | 6                     | 212           | 27           | 196                | 50                       | 119            | 225   |
| Census region and division                            |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Northeast   | 220   | 5                     | 22           | 39               | 1                     | 39            | 4            | 35                 | 8                        | 24             | 42    |
| New England   | 51    | 1                     | 4            | 8                | (*)                   | 9             | 1            | 10                 | 2                        | 5              | 11    |
| Middle Atlantic                                       | 170   | 4                     | 18           | 31               | <u>`</u> 1            | 31            | 3            | 25                 | 6                        | 19             | 31    |
| Midwest   | 249   | 7                     | 28           | 41               | 1                     | 46            | 7            | 37                 | 10                       | 23             | 49    |
| East North Central                                    | 174   | 5                     | 19           | 29               | 1                     | 32            | 4            | 27                 | 7                        | 16             | 35    |
| West North Central                                    | 75    | 3                     | 9            | 12               | (*)                   | 14            | 2            | 11                 | 3                        | 7              | 14    |
| South   | 530   | 8                     | 108          | 76               | 3                     | 87            | 11           | 82                 | 21                       | 45             | 90    |
| South Atlantic  | 287   | 4                     | 58           | 41               | 2                     | 45            | 5            | 45                 | 12                       | 26             | 48    |
| East South Central                                    | 71    | 2                     | 11           | 11               | (*)                   | 12            | 2            | 12                 | 3                        | 5              | 12    |
| West South Central                                    | 173   | 2                     | 39           | 24               | 1                     | 30            | 4            | 24                 | 6                        | 13             | 30    |
| West  | 243   | 4                     | 27           | 39               | 1                     | 41            | 5            | 42                 | 12                       | 27             | 44    |
| Mountain  | 67    | 1                     | 9            | 11               | (*)                   | 11            | 2            | 10                 | 4                        | 7              | 12    |
| Pacific   | 176   | 3                     | 18           | 28               | 1                     | 30            | 4            | 32                 | 8                        | 21             | 32    |
| Climate region <sup>1</sup>                           |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Very cold/Cold  | 419   | 13                    | 38           | 72               | 2                     | 75            | 9            | 70                 | 17                       | 40             | 82    |
| Mixed-humid   | 415   | 9                     | 63           | 65               | 2                     | 71            | 10           | 64                 | 18                       | 40             | 73    |
| Mixed-dry/Hot-dry                                     | 152   | 1                     | 22           | 22               | 1                     | 25            | 3            | 26                 | 7                        | 17             | 28    |
| Hot-humid   | 220   | 1                     | 59           | 30               | 1                     | 34            | 4            | 32                 | 7                        | 15             | 35    |
| Marine  | 35    | 1                     | 2            | 7                | (*)                   | 6             | 1            | 5                  | 1                        | 5              | 8     |
| Number of floors                                      |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| One   | 545   | 12                    | 76           | 71               | 4                     | 95            | 16           | 127                | 18                       | 37             | 89    |
| Two   | 259   | 6                     | 36           | 41               | 1                     | 45            | 4            | 39                 | 10                       | 29             | 47    |
| Three   | 109   | 2                     | 16           | 19               | (*)                   | 19            | 2            | 11                 | 5                        | 12             | 22    |
| Four to nine  | 231   | 3                     | 39           | 45               | 1                     | 37            | 4            | 15                 | 11                       | 27             | 48    |
| Ten or more   | 98    | 1                     | 17           | 20               | (*)                   | 16            | 2            | 5                  | 5                        | 12             | 20    |
| Elevators and escalators<br>(more than one may apply) |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Any elevators   | 539   | 9                     | 91           | 102              | 2                     | 89            | 8            | 40                 | 24                       | 69             | 105   |
| Number of elevators                                   |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| One   | 147   | 3                     | 21           | 28               | 1                     | 26            | 2            | 15                 | 7                        | 17             | 28    |
| Two to five   | 222   | 4                     | 36           | 41               | 1                     | 36            | 3            | 15                 | 9                        | 35             | 43    |
| Six or more   | 170   | 2                     | 34           | 34               | (*)                   | 28            | 4            | 10                 | 8                        | 17             | 34    |
| Any escalators  | 66    | 1                     | 12           | 13               | (*)                   | 12            | 1            | 5                  | 4                        | 5              | 14    |
| Number of workers (main shift)                        |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Fewer than 5  | 134   | 4                     | 16           | 13               | 1                     | 23            | 3            | 27                 | 6                        | 7              | 33    |
| 5 to 9  | 112   | 3                     | 15           | 15               | 1                     | 18            | 5            | 23                 | 5                        | 7              | 21    |
| 10 to 19  | 132   | 3                     | 17           | 18               | 1                     | 21            | 6            | 29                 | 6                        | 9              | 22    |
| 20 to 49  | 220   | 5                     | 30           | 33               | 1                     | 37            | 5            | 42                 | 9                        | 21             | 36    |
| 50 to 99  | 214   | 4                     | 34           | 35               | 1                     | 38            | 3            | 35                 | 8                        | 22             | 35    |
| 100 to 249  | 185   | 3                     | 29           | 32               | 1                     | 34            | 2            | 25                 | 6                        | 20             | 33    |
| 250 or more   | 246   | 3                     | 45           | 50               | 1                     | 42            | 4            | 15                 | 10                       | 32             | 45    |
|   |       |                       |              |                  |                       |               |              |                    |                          |                |       |

Table E5. Electricity consumption (kWh) by end use, 2012

|   | Total        | Space<br>heat-<br>ing | Cool-<br>ing | Venti-<br>lation | Water<br>heat-<br>ing | Light-<br>ing | Cook-<br>ing | Refrig-<br>eration | Office<br>equip-<br>ment | Com-<br>puting | Other |
|---|--------------|-----------------------|--------------|------------------|-----------------------|---------------|--------------|--------------------|--------------------------|----------------|-------|
| All buildings   | 1,243        | 25                    | 185          | 196              | 6                     | 212           | 27           | 196                | 50                       | 119            | 225   |
| Weekly operating hours  |              |                       |              |                  |                       |               |              |                    |                          |                |       |
| Fewer than 40   | 35           | 1                     | 6            | 2                | (*)                   | 5             | 1            | 4                  | 2                        | 3              | 10    |
| 40 to 48  | 155          | 4                     | 25           | 22               | 1                     | 29            | 1            | 12                 | 8                        | 24             | 29    |
| 49 to 60  | 238          | 6                     | 37           | 40               | 1                     | 44            | 2            | 19                 | 10                       | 36             | 45    |
| 61 to 84  | 249          | 5                     | 37           | 43               | 2                     | 42            | 4            | 51                 | 7                        | 19             | 38    |
| 85 to 167   | 200          | 3                     | 25           | 27               | 1                     | 31            | 10           | 62                 | 4                        | 8              | 29    |
| Open continuously   | 366          | 5                     | 55           | 61               | 2                     | 61            | 10           | 49                 | 20                       | 29             | 74    |
| Ownership and occupancy   |              |                       |              |                  |                       |               |              |                    |                          |                |       |
| Nongovernment owned   | 988          | 20                    | 138          | 155              | 5                     | 167           | 24           | 176                | 40                       | 86             | 176   |
| Owner occupied  | 455          | 9                     | 68           | 65               | 2                     | 77            | 13           | 78                 | 21                       | 34             | 88    |
| Leased to tenant(s)   | 398          | 8                     | 52           | 67               | 3                     | 67            | 9            | 78                 | 14                       | 36             | 64    |
| Owner occupied and leased   | 132          | 2                     | 19           | 23               | 1                     | 23            | 2            | 20                 | 5                        | 16             | 23    |
| Unoccupied  | 2            | Q                     | (*)          | (*)              | Q                     | Q             | Q            | Q                  | Q                        | Q              | 1     |
| Government owned  | 255          | 5                     | 47           | 41               | 1                     | 45            | 4            | 20                 | 11                       | 33             | 49    |
| Federal   | 23           | (*)                   | 4            | 5                | (*)                   | 4             | (*)          | 1                  | 1                        | 2              | 5     |
| State   | 81           | 2                     | 10           | 16               | (*)                   | 15            | 1            | 7                  | 4                        | 10             | 16    |
| Local   | 152          | 3                     | 33           | 19               | 1                     | 26            | 2            | 13                 | 6                        | 21             | 28    |
| Party responsible for operation<br>and maintenance of energy<br>systems |              |                       |              |                  |                       |               |              |                    |                          |                |       |
| Building owner  | 1,029        | 21                    | 158          | 165              | 5                     | 178           | 21           | 139                | 44                       | 105            | 194   |
| Business owner or tenant  | 182          | 3                     | 22           | 26               | 1                     | 30            | 5            | 52                 | 5                        | 12             | 26    |
| Property management   | 18           | (*)                   | 3            | 3                | (*)                   | 3             | 1            | 2                  | 1                        | 2              | 3     |
| Other   | 13           | (*)                   | 2            | 2                | Q                     | 2             | 1            | 3                  | 1_                       | 1              | 2     |
| Provider of direct input on energy-                                     |              |                       |              |                  |                       |               |              |                    |                          |                |       |
| related equipment purchases   | 1.001        | 24                    | 162          | 4.00             |                       | 402           | 22           | 4.40               | 45                       | 407            | 100   |
| Building owner  | 1,061        | 21                    | 162          | 169              | 5                     | 183           | 22           | 148                | 45                       | 107            | 199   |
| Business owner or tenant  | 142          | 3                     | 18           | 20               | 1                     | 23            | 4            | 39                 | 4                        | 9              | 20    |
| Property management Other   | 12<br>28     | (*)<br>(*)            | 2<br>4       | 2<br>4           | (*)<br>(*)            | 2<br>4        | (*)<br>1     | 2<br>8             | 1                        | 1<br>1         | 2     |
| Number of establishments  |              |                       |              |                  |                       |               |              |                    |                          |                |       |
| One   | 777          | 16                    | 116          | 113              | 3                     | 133           | 21           | 119                | 35                       | 73             | 147   |
| 2 to 5  | 249          | 5                     | 36           | 42               | 1                     | 43            | 4            | 43                 | 9                        | 21             | 46    |
| 6 to 10   | 70           | 1                     | 10           | 13               | 1                     | 11            | 1            | 14                 | 2                        | 8              | 10    |
| 11 to 20  | 69           | 1                     | 11           | 13               | 1                     | 11            | 1            | 13                 | 2                        | 6              | 10    |
| More than 20  | 76           | 1                     | 14           | 14               | 1                     | 14            | 1            | 8                  | 2                        | 11             | 11    |
| Currently unoccupied  | 2            | Q                     | (*)          | (*)              | Q                     | (*)           | Q            | Q                  | Q                        | Q              | 1     |
| Predominant exterior wall material                                      | <del>-</del> |                       |              |                  |                       |               |              |                    |                          |                |       |
| Brick, stone, or stucco   | 596          | 13                    | 90           | 98               | 3                     | 97            | 15           | 86                 | 27                       | 61             | 107   |
| Concrete (block or poured)  | 323          | 13<br>5               | 50<br>50     | 98<br>48         | 2                     | 55            | 6            | 68                 | 11                       | 24             | 54    |
| Concrete panels   | 121          | 2                     | 16           | 20               | (*)                   | 22            | 2            | 14                 | 5                        | 24<br>15       | 24    |
| Siding or shingles  | 71           | 2                     | 8            | 10               | (*)                   | 11            | 3            | 14                 | 3                        | 6              | 14    |
| Metal panels  | 71<br>79     | 2                     | 13           | 9                | (*)                   | 19            | 1            | 9                  |                          | 6              | 18    |
|   |              | 1                     | 13<br>5      | 6                |                       | 19<br>5       | (*)          | 2                  | 1                        | 6              |       |
| Window glass Other  | 31<br>14     |                       | 2            | 2                | (*)                   | 2             |              |                    |                          | 1              | 5     |
|   | 14<br>8      | (*)                   |              |                  | (*)                   |               | (*)          | Q<br>1             | (*)                      |                | 3     |
| No one major type   | 8            | (*)                   | 1            | 1                | (*)                   | 1             | Q            | 1                  | (*)                      | 1              | 2     |

Table E5. Electricity consumption (kWh) by end use, 2012

|  |       | Space<br>heat- | Cool-    | Venti- | Water<br>heat- | Light- | Cook- | Refrig- | Office<br>equip- | Com-    |       |
|--|-------|----------------|----------|--------|----------------|--------|-------|---------|------------------|---------|-------|
|  | Total | ing            | ing      | lation | ing            | ing    | ing   | eration | ment             | puting  | Other |
| All buildings                            | 1,243 | 25             | 185      | 196    | 6              | 212    | 27    | 196     | 50               | 119     | 225   |
| Predominant roof material                |       |                |          |        |                |        |       |         |                  |         |       |
| Metal surfacing                          | 169   | 4              | 27       | 19     | 1              | 34     | 3     | 29      | 6                | 13      | 33    |
| Synthetic or rubber                      | 422   | 9              | 59       | 72     | 2              | 71     | 8     | 67      | 16               | 42      | 76    |
| Built-up                                 | 337   | 5              | 54       | 58     | 2              | 58     | 8     | 48      | 12               | 35      | 57    |
| Slate or tile shingles                   | 59    | 1              | 8        | 9      | (*)            | 9      | 1     | 10      | 3                | 6       | 12    |
| Wooden materials (including              |       |                |          |        |                |        |       |         |                  |         |       |
| shingles)                                | 14    | (*)            | 2        | 2      | (*)            | 2      | 1     | 4       | 1                | 1       | 2     |
| Asphalt, fiberglass, or                  |       |                |          |        |                |        |       |         |                  |         |       |
| other shingles                           | 196   | 5              | 28       | 29     | 1              | 31     | 6     | 33      | 10               | 17      | 36    |
| Concrete                                 | 30    | (*)            | 6        | 5      | Q              | 5      | (*)   | 3       | 1                | 5       | 5     |
| Other                                    | 11    | (*)            | 2        | 2      | Q              | 2      | Q     | 3       | (*)              | 1       | 2     |
| No one major type                        | 5     | (*)            | 1        | 1      | Q              | 1      | Q     | Q       | (*)              | 1       | 1     |
| Roof characteristics                     |       |                |          |        |                |        |       |         |                  |         |       |
| Roof tilt                                |       |                |          |        |                |        |       |         |                  |         |       |
| Flat                                     | 799   | 14             | 125      | 136    | 4              | 138    | 17    | 112     | 30               | 81      | 142   |
| Shallow pitch                            | 298   | 6              | 39       | 40     | 2              | 52     | 6     | 62      | 12               | 26      | 53    |
| Steeper pitch                            | 145   | 4              | 21       | 20     | 1              | 22     | 4     | 22      | 9                | 12      | 30    |
| Cool roof                                | 325   | 5              | 50       | 54     | 2              | 55     | 6     | 52      | 12               | 33      | 56    |
| Renovations in buildings                 |       |                |          |        |                |        |       |         |                  |         |       |
| constructed before 2008                  |       |                |          |        |                |        |       |         |                  |         |       |
| (more than one may apply)                |       |                |          |        |                |        |       |         |                  |         |       |
| Any type of renovation                   | 648   | 13             | 97       | 108    | 3              | 108    | 14    | 94      | 26               | 67      | 118   |
| Addition or annex                        | 205   | 4              | 37       | 33     | 1              | 35     | 4     | 25      | 9                | 17      | 40    |
| Reduction in floorspace                  | 36    | (*)            | 6        | 7      | (*)            | 7      | 1     | 5       | 1                | 3       | 6     |
| Roof replacement                         | 329   | 7              | 50       | 57     | 2              | 56     | 8     | 43      | 13               | 35      | 61    |
| Exterior wall replacement                | 70    | 2              | 12       | 11     | (*)            | 11     | 2     | 10      | 2                | 8       | 12    |
| Interior wall reconfiguration            | 356   | 7              | 54       | 64     | 2              | 58     | 6     | 42      | 14               | 46      | 63    |
| Window replacement                       | 176   | 4              | 28       | 29     | 1              | 28     | 5     | 19      | 9                | 21      | 33    |
| HVAC equipment upgrade                   | 433   | 9              | 68       | 74     | 2              | 72     | 9     | 58      | 17               | 46      | 78    |
| Lighting upgrade                         | 410   | 8              | 62       | 69     | 2              | 66     | 10    | 61      | 17               | 43      | 72    |
| Electrical upgrade                       | 265   | 5              | 42       | 44     | 1              | 42     | 6     | 35      | 11               | 29      | 49    |
| Plumbing system upgrade                  | 222   | 4              | 34       | 38     | 1              | 34     | 6     | 29      | 10               | 25      | 41    |
| Insulation upgrade                       | 126   | 3              | 19       | 19     | 1              | 18     | 3     | 20      | 6                | 15      | 22    |
| Fire, safety, or security upgrade        | 282   | 6              | 47       | 48     | 1              | 44     | 7     | 35      | 11               | 33      | 50    |
| Structural upgrade                       | 69    | 1              | 12       | 10     | (*)            | 10     |       | 9       | 3                | 9       | 13    |
| Other                                    | 13    | (*)            | 2        | 3      | (*)            | 2      | Q     | 1       | 1                | 2       | 2     |
| No renovations                           | 506   | 10             | 2<br>75  |        | 3              | 90     | 11    | 87      | 21               | 44      | 92    |
| Buildings constructed 2008 or later      | 89    | 2              | 13       | 14     | (*)            | 15     | 2     | 16      | 3                | 8       | 16    |
|  |       | <u>_</u>       | 13       |        |                | 13     |       |         |                  |         |       |
| Energy sources (more than one may apply) |       |                |          |        |                |        |       |         |                  |         |       |
| Electricity                              | 1,243 | 25             | 185      | 196    | 6              | 212    | 27    | 196     | 50               | 119     | 225   |
| Natural gas                              | 903   | 15             | 134      | 146    | 4              | 151    | 20    | 153     | 37               | 83      | 160   |
| Fuel oil                                 | 382   | 6              | 66       | 66     | 1              | 65     | 7     | 34      | 15               | 46      | 76    |
| District heat                            | 103   | 1              | 7        | 24     | (*)            | 20     | 2     | 7       | 6                | 12      | 25    |
| District rieat  District chilled water   | 86    | 1              | <i>'</i> | 20     | (*)            | 17     | 1     | 5       | 5                | 12      | 21    |
| Propane                                  | 110   | 3              | 14       | 14     | (*)            | 19     | 3     | 23      | 5                | 7       | 22    |
| Other                                    | 50    | 3<br>1         | 8        | 9      | (*)            | 9      | 1     | 23<br>8 | 2                |         | 9     |
| Ottlei                                   | 50    | <u>_</u>       | ······   | 9      | (,)            | 9      |       | ŏ       | Z                | <u></u> | 9     |

Table E5. Electricity consumption (kWh) by end use, 2012

|                                     | Total | Space<br>heat-<br>ing | Cool-<br>ing | Venti-<br>lation | Water<br>heat-<br>ing | Light-<br>ing | Cook-<br>ing | Refrig-<br>eration | Office<br>equip-<br>ment | Com- | Other    |
|-------------------------------------|-------|-----------------------|--------------|------------------|-----------------------|---------------|--------------|--------------------|--------------------------|------|----------|
| All buildings                       | 1,243 | 25                    | 185          | 196              | 6                     | 212           | 27           | 196                | 50                       | 119  | 225      |
| Space-heating energy sources        |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Electricity                         | 774   | 25                    | 122          | 120              | 5                     | 127           | 17           | 127                | 31                       | 72   | 129      |
| Electricity main                    | 439   | 16                    | 75           | 63               | 3                     | 69            | 9            | 69                 | 19                       | 44   | 71       |
| Electricity secondary               | 335   | 9                     | 46           | 56               | 2                     | 57            | 7            | 58                 | 12                       | 29   | 58       |
| Other excluding electricity         | 423   | N                     | 53           | 73               | 1                     | 76            | 10           | 62                 | 18                       | 44   | 86       |
| Buildings without heating           | 45    | N                     | 11           | 3                | (*)                   | 9             | 1            | 7                  | 1                        | 2    | 11       |
| Primary space-heating energy source |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Electricity                         | 439   | 16                    | 75           | 63               | 3                     | 69            | 9            | 69                 | 19                       | 44   | 71       |
| Natural gas                         | 611   | 7                     | 88           | 99               | 2                     | 105           | 14           | 106                | 23                       | 58   | 109      |
| Fuel oil                            | 24    | 1                     | 3            | 3                | (*)                   | 5             | (*)          | 3                  | 1                        | 2    | 6        |
| District heat                       | 101   | 1                     | <u>-</u> 7   | 24               | (*)                   | 20            | 2            | 7                  | 5                        | 12   | 24       |
| Propane                             | 18    | 1                     | 1            | 2                | (*)                   | 3             | Q            |                    | 1                        | 1    | 3        |
| Other                               | 5     | Q                     | (*)          | 1                | (*)                   | 3<br>1        | Q            | 1                  | Q                        | (*)  | 1        |
| Ottlei                              |       | Q                     | ( )          | <u>T</u>         | (_)                   | <u>T</u>      | Q            |                    | <u>u</u>                 |      | <u>-</u> |
| Cooling energy sources              |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Electricity                         | 1,159 | 24                    | 185          | 182              | 6                     | 193           | 26           | 187                | 46                       | 109  | 201      |
| Other excluding electricity         | 56    | (*)                   | N            | 13               | (*)                   | 12            | 1            | 4                  | 4                        | 8    | 14       |
| Buildings without cooling           | 27    | (*)                   | N            | 1                | (*)                   | 7             | (*)          | 6                  | 1                        | 1    | 11       |
| Water-heating energy sources        |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Electricity                         | 649   | 16                    | 100          | 99               | 6                     | 111           | 12           | 111                | 22                       | 65   | 107      |
| Other excluding electricity         | 560   | 8                     | 81           | 94               | N                     | 93            | 15           | 84                 | 28                       | 51   | 106      |
| Buildings without water heating     | 33    | (*)                   | 4            | 3                | N                     | 8             | Q            | 2                  | 1                        | 3    | 12       |
| Cooking energy sources              |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Electricity                         | 454   | 9                     | 72           | 68               | 3                     | 64            | 27           | 92                 | 16                       | 35   | 67       |
| Other excluding electricity         | 247   | 3                     | 39           | 39               | 1                     | 35            | N            | 63                 | 11                       | 15   | 40       |
| Buildings without cooking           | 542   | 12                    | 74           | 89               | 2                     | 113           | N            | 42                 | 23                       | 69   | 119      |
| Energy end uses                     |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| (more than one may apply)           |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Buildings with space heating        | 1,198 | 25                    | 175          | 193              | 6                     | 203           | 27           | 189                | 49                       | 116  | 215      |
| Buildings with cooling              | 1,215 | 24                    | 185          | 195              | 6                     | 205           | 27           | 190                | 50                       | 118  | 215      |
| Buildings with water heating        | 1,209 | 24                    | 181          | 193              | 6                     | 204           | 27           | 195                | 49                       | 116  | 213      |
| Buildings with cooking              | 700   | 13                    | 111          | 107              | 4                     | 100           | 27           | 155                | 28                       | 50   | 107      |
| Buildings with manufacturing        | 67    | 1                     | 10           | 8                | (*)                   | 14            | 1            | 9                  | 1                        | 4    | 17       |
| Buildings with electricity          | 490   | 7                     | 80           | 0.4              | 2                     | 90            | 0            | 62                 | 19                       | F.7  | 00       |
| generation                          | 490   | /                     |              | 84               | 2                     | 80            | 9            | 62                 | 19                       | 57   | 90       |
| Percent of floorspace heated        |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Not heated                          | 45    | N                     | 11           | 3                | (*)                   | 9             | 1            | 7                  | 1                        | 2    | 11       |
| 1 to 50                             | 98    | 1                     | 11           | 11               | (*)                   | 18            | 1            | 18                 | 3                        | 11   | 22       |
| 51 to 99                            | 234   | 4                     | 37           | 38               | 1                     | 38            | 5            | 46                 | 9                        | 18   | 38       |
| 100                                 | 866   | 20                    | 127          | 144              | 4                     | 146           | 21           | 125                | 37                       | 87   | 154      |
| Percent of floorspace cooled        |       |                       |              |                  |                       |               |              |                    |                          |      |          |
| Not cooled                          | 27    | (*)                   | N            | 1                | (*)                   | 7             | (*)          | 6                  | 1                        | 1    | 11       |
| 1 to 50                             | 153   | 3                     | 12           | 19               | 1                     | 36            | 2            | 24                 | 6                        | 12   | 39       |
| 51 to 99                            | 381   | 7                     | 55           | 63               | 2                     | 61            | 8            | 68                 | 14                       | 40   | 63       |
| 100                                 | 681   | 14                    | 118          | 113              | 4                     | 109           | 17           | 99                 | 30                       | 66   | 113      |

Table E5. Electricity consumption (kWh) by end use, 2012

|   | Total | Space<br>heat-<br>ing | Cool-<br>ing | Venti-<br>lation | Water<br>heat-<br>ing | Light-<br>ing | Cook-<br>ing | Refrig-<br>eration | Office<br>equip-<br>ment | Com-<br>puting | Other |
|---|-------|-----------------------|--------------|------------------|-----------------------|---------------|--------------|--------------------|--------------------------|----------------|-------|
| All buildings   | 1,243 | 25                    | 185          | 196              | 6                     | 212           | 27           | 196                | 50                       | 119            | 225   |
| Percent lit when open   |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Zero  | 1     | Q                     | Q            | Q                | Q                     | Q             | Q            | Q                  | Q                        | Q              | 1     |
| 1 to 50   | 114   | 3                     | 16           | 18               | 1                     | 15            | 2            | 14                 | 7                        | 8              | 31    |
| 51 to 99  | 526   | 11                    | 78           | 87               | 3                     | 83            | 11           | 90                 | 21                       | 51             | 91    |
| 100   | 599   | 11                    | 92           | 91               | 3                     | 113           | 14           | 92                 | 23                       | 59             | 101   |
| Building never open/electricity                                 |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| not used  | 3     | (*)                   | (*)          | (*)              | Q                     | Q             | Q            | Q                  | Q                        | Q              | 2     |
| Percent lit during off hours                                    |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Zero  | 232   | 6                     | 34           | 34               | 1                     | 37            | 3            | 30                 | 9                        | 28             | 49    |
| 1 to 50   | 784   | 16                    | 122          | 127              | 5                     | 136           | 16           | 123                | 31                       | 74             | 136   |
| 51 to 100   | 165   | 2                     | 21           | 26               | (*)                   | 29            | 6            | 31                 | 7                        | 14             | 29    |
| Building always open with                                       | 103   | <del>-</del>          |              |                  |                       |               |              | J.                 | ·                        |                |       |
| no "off hours"  | 62    | 1                     | 9            | 10               | (*)                   | 11            | 2            | 13                 | 3                        | 4              | 11    |
| Electricity not used  | N     | N                     | N            | N                | N                     | N             | N            | N                  | N                        | N              | N     |
| Heating equipment   |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| (more than one may apply)                                       |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Heat pumps  | 180   | 4                     | 33           | 25               | 1                     | 28            | 3            | 26                 | 10                       | 18             | 30    |
| Furnaces  | 106   | 3                     | 14           | 15               | 1                     | 17            | 3            | 20                 | 5                        | 9              | 18    |
| Individual space heaters  | 271   | 9                     | 36           | 43               | 2                     | 49            | 6            | 39                 | 12                       | 25             | 52    |
| District heat   | 103   | 1                     | 7            | 24               | (*)                   | 20            | 2            | 7                  | 6                        | 12             | 24    |
| Boilers   | 350   | 4                     | 61           | 62               | 1                     | 58            | 6            | 36                 | 15                       | 40             | 67    |
| Packaged heating units  | 771   | 18                    | 118          | 123              | 5                     | 126           | 19           | 144                | 27                       | 65             | 126   |
| Other   | 38    | 1                     | 3            | 5                | (*)                   | 5             | 1            | 18                 | 1                        | 1              | 4     |
| Cooling equipment   |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| (more than one may apply)                                       |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Residential-type central air                                    |       |                       |              |                  |                       |               |              |                    | _                        |                |       |
| conditioners  | 186   | 4                     | 27           | 22               | 1                     | 32            | 4            | 42                 | 8                        | 14             | 32    |
| Heat pumps  | 189   | 5                     | 33           | 27               | 1                     | 30            | 3            | 28                 | 10                       | 19             | 32    |
| Individual air conditioners                                     | 160   | 4                     | 26           | 24               | 1                     | 26            | 4            | 21                 | 10                       | 14             | 31    |
| District chilled water  | 86    | 1                     | 4            | 20               | (*)                   | 17            | 1            | 5                  | 5                        | 12             | 21    |
| Central chillers  | 328   | 4                     | 63           | 62               | 1                     | 53            | 5            | 24                 | 12                       | 43             | 62    |
| Packaged air conditioning units                                 | 727   | 15                    | 114          | 122              | 4                     | 118           | 18           | 132                | 25                       | 59             | 118   |
| Swamp coolers   | 29    | 1                     | 4            | 4                | (*)                   | 5             | 1            | 7                  | 1                        | 2              | 4     |
| Other   | 9     | Q                     | 1            | 1                | Q                     | 1             | Q            | (*)                | (*)                      | Q              | 1     |
| Main equipment replaced since<br>1990 (more than one may apply) |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Heating   | 388   | 9                     | 57           | 59               | 2                     | 63            | 9            | 65                 | 17                       | 40             | 66    |
| Cooling   | 445   | 10                    | 72           | 69               | 3                     | 71            | 10           | 68                 | 20                       | 46             | 77    |
| Water-heating equipment   |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Centralized system  | 728   | 15                    | 106          | 114              | 3                     | 122           | 20           | 114                | 33                       | 68             | 134   |
| Distributed system  | 158   | 4                     | 23           | 24               | 1                     | 31            | 2            | 22                 | 6                        | 16             | 29    |
| Combination of centralized and                                  |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| distributed system  | 324   | 6                     | 52           | 54               | 2                     | 51            | 6            | 59                 | 11                       | 33             | 50    |
|   |       |                       |              |                  |                       |               |              |                    |                          |                |       |

Table E5. Electricity consumption (kWh) by end use, 2012

|  | Total | Space<br>heat-<br>ing | Cool-<br>ing | Venti-<br>lation | Water<br>heat-<br>ing | Light-<br>ing | Cook-<br>ing | Refrig-<br>eration | Office<br>equip-<br>ment | Com-<br>puting | Other |
|--|-------|-----------------------|--------------|------------------|-----------------------|---------------|--------------|--------------------|--------------------------|----------------|-------|
| All buildings                                      | 1,243 | 25                    | 185          | 196              | 6                     | 212           | 27           | 196                | 50                       | 119            | 225   |
| Lighting equipment types (more than one may apply) |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Incandescent                                       | 612   | 12                    | 99           | 99               | 3                     | 100           | 14           | 101                | 25                       | 54             | 105   |
| Standard fluorescent                               | 1,197 | 24                    | 179          | 191              | 6                     | 203           | 26           | 190                | 49                       | 115            | 215   |
| Compact fluorescent                                | 889   | 17                    | 140          | 149              | 5                     | 144           | 21           | 132                | 38                       | 89             | 154   |
| High-intensity discharge (HID)                     | 382   | 6                     | 65           | 63               | 2                     | 67            | 6            | 56                 | 14                       | 33             | 70    |
| Halogen  | 478   | 9                     | 77           | 80               | 3                     | 78            | 11           | 80                 | 19                       | 41             | 82    |
| LED  | 415   | 7                     | 67           | 73               | 2                     | 64            | 8            | 74                 | 15                       | 34             | 71    |
| Other  | 10    | Q                     | 2            | 2                | Q                     | 1             | (*)          | 2                  | (*)                      | 1              | 2     |
| Refrigeration equipment                            |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| (more than one may apply)                          |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Any refrigeration                                  | 1,150 | 23                    | 172          | 183              | 6                     | 189           | 27           | 196                | 47                       | 107            | 200   |
| Walk-in units                                      | 606   | 9                     | 92           | 91               | 3                     | 83            | 23           | 160                | 21                       | 38             | 85    |
| Cases or cabinets                                  | 582   | 9                     | 83           | 90               | 3                     | 83            | 19           | 153                | 20                       | 37             | 84    |
| Large cold storage areas                           | 98    | 1                     | 11           | 11               | (*)                   | 12            | 2            | 42                 | 2                        | 4              | 12    |
| Commercial ice makers                              | 653   | 11                    | 104          | 105              | 3                     | 96            | 21           | 134                | 27                       | 50             | 102   |
| Residential-type or compact units                  | 911   | 19                    | 141          | 150              | 5                     | 157           | 17           | 121                | 38                       | 95             | 166   |
| Vending machines                                   | 742   | 13                    | 116          | 126              | 4                     | 129           | 11           | 111                | 30                       | 71             | 131   |
| No refrigeration                                   | 93    | 2                     | 13           | 13               | (*)                   | 23            | Q            | N                  | 4                        | 12             | 26    |
| Office equipment                                   |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| (more than one may apply)                          |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| Desktop computers                                  | 1,177 | 23                    | 178          | 190              | 6                     | 201           | 25           | 182                | 48                       | 117            | 208   |
| With flat screen monitors                          | 1,166 | 23                    | 176          | 188              | 6                     | 199           | 25           | 180                | 48                       | 117            | 205   |
| With multiple monitors                             | 523   | 9                     | 82           | 94               | 2                     | 87            | 8            | 62                 | 20                       | 68             | 90    |
| Laptop computers                                   | 968   | 19                    | 155          | 163              | 5                     | 167           | 14           | 125                | 40                       | 106            | 174   |
| Dedicated servers                                  | 869   | 16                    | 135          | 145              | 4                     | 146           | 15           | 124                | 34                       | 100            | 149   |
| Laser printers                                     | 856   | 16                    | 129          | 143              | 4                     | 145           | 15           | 125                | 37                       | 92             | 150   |
| Inkjet printers                                    | 524   | 12                    | 83           | 80               | 3                     | 90            | 13           | 82                 | 19                       | 47             | 94    |
| FAX machines                                       | 1,029 | 20                    | 156          | 168              | 5                     | 179           | 20           | 159                | 41                       | 101            | 180   |
| Photocopiers                                       | 908   | 17                    | 144          | 155              | 4                     | 158           | 12           | 114                | 39                       | 101            | 164   |
| Number of desktop computers                        |       |                       |              |                  |                       |               |              |                    |                          |                |       |
| None   | 65    | 2                     | 8            | 6                | (*)                   | 11            | 2            | 15                 | 2                        | Q              | 17    |
| 1 to 4   | 205   | 5                     | 24           | 24               | 1                     | 31            | 12           | 56                 | 9                        | 6              | 37    |
| 5 to 9   | 134   | 3                     | 18           | 18               | 1                     | 23            | 3            | 31                 | 6                        | 8              | 24    |
| 10 to 19   | 129   | 3                     | 17           | 20               | 1                     | 23            | 2            | 23                 | 5                        | 12             | 23    |
| 20 to 49   | 210   | 4                     | 33           | 34               | 1                     | 38            | 2            | 34                 | 9                        | 16             | 37    |
| 50 to 99   | 120   | 3                     | 20           | 21               | 1                     | 23            | 1            | 13                 | 5                        | 12             | 21    |
| 100 to 249   | 160   | 2                     | 22           | 29               | 1                     | 30            | 2            | 14                 | 7                        | 24             | 29    |
| 250 or more  | 220   | 3                     | 44           | 42               | 1                     | 34            | 3            | 10                 | 8                        | 39             | 37    |

Table E5. Electricity consumption (kWh) by end use, 2012

|   | Total | Space<br>heat-<br>ing | Cool-<br>ing | Venti-<br>lation | Water<br>heat-<br>ing                  | Light-<br>ing | Cook-<br>ing | Refrig-<br>eration | Office<br>equip-<br>ment | Com-<br>puting | Other |
|---|-------|-----------------------|--------------|------------------|--|---------------|--------------|--------------------|--------------------------|----------------|-------|
| All buildings   | 1,243 | 25                    | 185          | 196              | 6                                      | 212           | 27           | 196                | 50                       | 119            | 225   |
| Number of laptop computers  |       |                       |              |                  |  |               |              |                    |                          |                |       |
| None  | 275   | 6                     | 31           | 33               | 1                                      | 45            | 13           | 71                 | 11                       | 13             | 51    |
| 1 to 4  | 273   | 7                     | 40           | 37               | 2                                      | 48            | 5            | 53                 | 12                       | 18             | 51    |
| 5 to 9  | 126   | 2                     | 19           | 21               | 1                                      | 24            | 2            | 21                 | 5                        | 9              | 22    |
| 10 to 19  | 131   | 3                     | 23           | 23               | 1                                      | 22            | 2            | 19                 | 5                        | 11             | 23    |
| 20 to 49  | 154   | 3                     | 21           | 28               | 1                                      | 27            | 2            | 16                 | 7                        | 22             | 28    |
| 50 to 99  | 85    | 1                     | 16           | 15               | (*)                                    | 15            | 1            | 6                  | 3                        | 11             | 16    |
| 100 to 249  | 90    | 1                     | 14           | 17               | ······································ | 15            | 1            | 5                  | 4                        | 18             | 16    |
| 250 or more   | 109   | 2                     | 22           | 21               | (*)                                    | 17            | 2            | 5                  | 4                        | 18             | 18    |
| Number of dedicated servers   |       |                       |              |                  |  |               |              |                    |                          |                |       |
| None  | 374   | 8                     | 51           | 50               | 2                                      | 66            | 13           | 72                 | 17                       | 19             | 76    |
| 1 to 4  | 497   | 11                    | 71           | 78               | 3                                      | 86            | 10           | 90                 | 20                       | 40             | 87    |
| 5 to 9  | 101   | 2                     | 15           | 17               | 1                                      | 17            | 1            | 16                 | 4                        | 10             | 16    |
| 10 to 19  | 109   | 2                     | 18           | 22               | (*)                                    | 18            | 1            | 10                 |                          | 15             | 19    |
| 20 to 49  | 70    | 1                     | 15           | 13               | ······································ | 12            | 1            | 4                  | 3                        | 11             | 12    |
| 50 or more  | 92    | 1                     | 16           | 15               | (*)                                    | 12            | 1            | 4                  | 3                        | 24             | 15    |
| Number of photocopiers  |       |                       |              |                  |  |               |              |                    |                          |                |       |
| None  | 335   | 8                     | 41           | 41               | 2                                      | 54            | 15           | 83                 | 12                       | 18             | 61    |
| One   | 215   | 5                     | 30           | 30               | 1                                      | 37            | 4            | 42                 | 9                        | 14             | 42    |
| 2 to 4  | 293   | 7                     | 45           | 49               | 1                                      | 52            | 3            | 40                 | 13                       | 31             | 51    |
| 5 to 9  | 144   | 3                     | 22           | 25               | 1                                      | 27            | 1            | 17                 | 5                        | 19             | 24    |
| 10 or more  | 257   | 3                     | 46           | 51               | 1                                      | 42            | 4            | 14                 | 12                       | 36             | 48    |
| Number of TVs or video displays   |       |                       |              |                  |  |               |              |                    |                          |                |       |
| None  | 224   | 5                     | 26           | 29               | 1                                      | 42            | 6            | 41                 | 4                        | 21             | 49    |
| One   | 121   | 3                     | 14           | 17               | 1                                      | 22            | 4            | 25                 | 4                        | 9              | 22    |
| 2 to 4  | 236   | 5                     | 36           | 37               | 1                                      | 43            | 4            | 40                 | 8                        | 20             | 43    |
| 5 to 9  | 150   | 4                     | 23           | 23               | 1                                      | 23            | 4            | 27                 | 5                        | 17             | 23    |
| 10 to 19  | 147   | 2                     | 23           | 27               | 1                                      | 25            | 3            | 22                 | 5                        | 16             | 23    |
| 20 to 49  | 140   | 3                     | 23           | 25               | 1                                      | 24            | 2            | 21                 | 6                        | 13             | 21    |
| 50 to 99  | 77    | 1                     | 10           | 13               | (*)                                    | 13            | 1            | 9                  | 6                        | 11             | 13    |
| 100 or more   | 149   | 2                     | 29           | 25               | (*)                                    | 21            | 4            | 12                 | 14                       | 11             | 31    |
| Food preparation or serving areas in non-food service buildings (more than one may apply) |       |                       |              |                  |  |               |              |                    |                          |                |       |
| Snack bar or concession stand   | 191   | 3                     | 35           | 29               | 1                                      | 27            | 5            | 39                 | 7                        | 15             | 30    |
| Fast food or small restaurant   | 224   | 3                     | 34           | 36               | 1                                      | 33            | 4            | 59                 | 9                        | 13             | 32    |
| Cafeteria or large restaurant   | 261   | 4                     | 52           | 46               | 1                                      | 40            | 5            | 31                 | 12                       | 26             | 44    |
| Commercial kitchen/   |       |                       |              |                  |  |               |              |                    |                          |                |       |
| food preparation area   | 292   | 5                     | 52           | 46               | 1                                      | 42            | 7            | 59                 | 14                       | 19             | 48    |
| Small kitchen area  | 203   | 4                     | 37           | 31               | 1                                      | 30            | 5            | 32                 | 10                       | 16             | 37    |
| Separate computer areas   |       |                       |              |                  |  |               |              |                    |                          |                |       |
| (more than one may apply)   | 220   |                       | 47           | 44               | / <b>*</b> /                           | 20            |              | 4.4                |                          | 4.4            | 40    |
| Data center or server farm  | 238   | 4<br>                 | 47           | 41               | (*)                                    | 36            | 3            | 14                 | 9                        | 44             | 40    |
| Computer-based training room  | 300   | 5                     | 54           | 52               | 1                                      | 51            | 4            | 36                 | 12                       | 36             | 49    |
| Student or public computer center   | 203   | 4                     | 37           | 33               | 1                                      | 32            | 4            | 23                 | 11                       | 23             | 35    |

Table E5. Electricity consumption (kWh) by end use, 2012

|   |       | Space<br>heat- | Cool- | Venti- | Water<br>heat- | Light- | Cook- | Refrig- | Office<br>equip- | Com-   |       |
|---|-------|----------------|-------|--------|----------------|--------|-------|---------|------------------|--------|-------|
|   | Total | ing            | ing   | lation | ing            | ing    | ing   | eration | ment             | puting | Other |
| All buildings                                 | 1,243 | 25             | 185   | 196    | 6              | 212    | 27    | 196     | 50               | 119    | 225   |
| HVAC conservation features                    |       |                |       |        |                |        |       |         |                  |        |       |
| (more than one may apply)                     |       |                |       |        |                |        |       |         |                  |        |       |
| Economizer cycle                              | 539   | 10             | 81    | 100    | 2              | 91     | 10    | 70      | 19               | 58     | 97    |
| Regular HVAC maintenance                      | 1,108 | 21             | 170   | 182    | 6              | 188    | 24    | 169     | 44               | 110    | 195   |
| Building automation system (BAS) <sup>2</sup> | 670   | 11             | 109   | 118    | 3              | 111    | 11    | 91      | 24               | 74     | 117   |
| Window and interior lighting                  |       |                |       |        |                |        |       |         |                  |        |       |
| features (more than one may                   |       |                |       |        |                |        |       |         |                  |        |       |
| apply)  |       |                |       |        |                |        |       |         |                  |        |       |
| Multipaned windows                            | 930   | 20             | 136   | 151    | 5              | 154    | 22    | 151     | 38               | 90     | 163   |
| Tinted window glass                           | 718   | 13             | 117   | 120    | 4              | 122    | 13    | 107     | 28               | 70     | 125   |
| Reflective window glass                       | 300   | 6              | 49    | 51     | 1              | 48     | 4     | 45      | 12               | 35     | 49    |
| External overhangs or awnings                 | 549   | 10             | 81    | 87     | 4              | 86     | 15    | 112     | 22               | 46     | 88    |
| Skylights or atriums                          | 332   | 6              | 53    | 60     | 2              | 58     | 5     | 42      | 13               | 31     | 63    |
| Light scheduling                              | 541   | 10             | 84    | 93     | 3              | 83     | 10    | 96      | 20               | 54     | 88    |
| Occupancy sensors                             | 609   | 10             | 95    | 106    | 3              | 97     | 9     | 91      | 23               | 66     | 109   |
| Multi-level lighting or dimming               | 272   | 5              | 43    | 47     | 2              | 39     | 6     | 53      | 11               | 21     | 45    |
| Daylight harvesting                           | 109   | 2              | 17    | 20     | 1              | 18     | 2     | 19      | 3                | 8      | 19    |
| Demand responsive lighting                    | 80    | 1              | 12    | 13     | 1              | 13     | 1     | 19      | 3                | 5      | 12    |
| Building automation system (BAS) for          |       |                |       |        |                |        |       |         |                  |        |       |
| lighting <sup>2</sup>                         | 239   | 4              | 37    | 42     | 2              | 38     | 4     | 48      | 6                | 21     | 37    |
| Equipment usage reduced when                  |       |                |       |        |                |        |       |         |                  |        |       |
| building not in full use                      |       |                |       |        |                |        |       |         |                  |        |       |
| (more than one may apply)                     |       |                |       |        |                |        |       |         |                  |        |       |
| Heating                                       | 893   | 20             | 138   | 147    | 5              | 149    | 17    | 141     | 35               | 87     | 155   |
| Cooling                                       | 902   | 19             | 147   | 149    | 5              | 150    | 17    | 139     | 35               | 87     | 154   |
| Lighting                                      | 1,137 | 23             | 171   | 182    | 6              | 195    | 24    | 174     | 46               | 110    | 205   |
| Annual consumption                            |       |                |       |        |                |        |       |         |                  |        |       |
| (kilowatthours)                               |       |                |       |        |                |        |       |         |                  |        |       |
| 10,000 or less                                | 4     | (*)            | (*)   | (*)    | (*)            | 1      | (*)   | (*)     | (*)              | (*)    | 2     |
| 10,001 to 50,000                              | 50    | 2              | 6     | 6      | (*)            | 10     | 1     | 4       | 3                | 5      | 13    |
| 50,001 to 100,000                             | 62    | 2              | 8     | 8      | (*)            | 12     | 1     | 7       | 3                | 6      | 14    |
| 100,001 to 500,000                            | 283   | 7              | 35    | 38     | 2              | 46     | 9     | 61      | 13               | 23     | 48    |
| 500,001 to 1,000,000                          | 165   | 4              | 24    | 26     | 1              | 26     | 6     | 26      | 8                | 16     | 28    |
| 1,000,001 to 5,000,000                        | 379   | 7              | 55    | 65     | 2              | 66     | 7     | 70      | 13               | 31     | 63    |
| Over 5,000,000                                | 300   | 4              | 56    | 53     | 1              | 51     | 4     | 28      | 10               | 36     | 57    |

<sup>&</sup>lt;sup>1</sup>These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from

http://www.eia.gov/consumption/commercial/data/2012/ • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the *Total of major fuels* category, is site electricity plus the conversion losses in the generation, transmission, and distribution processes. • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and E of the 2012 Commercial Buildings Energy Consumption Survey.

<sup>&</sup>lt;sup>2</sup>In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

<sup>(\*) =</sup> Value rounds to zero in the units displayed.