Estimating the Memory Usage of the "Electical power consumption" file

The amount of memory required for the complete dataset of 2,075,259 rows and 9 columns was estimated using a function published by Paul Hiemstra in an "R-bloggers" blog: "Predicting the memory usage of an R object containing numbers".

The following function prints the estimated memory usage of a vector based on the size of the vector and the type of vector:

```
predict_data_size = function(numeric_size, number_type =
"numeric") {
    if(number_type == "integer") {
        byte_per_number = 4
    } else if(number_type == "numeric") {
        byte_per_number = 8
    } else {
        stop(sprintf("Unknown number_type: %s",
number_type))
    }
    estimate_size_in_bytes = (numeric_size *
byte_per_number)
    class(estimate_size_in_bytes) = "object_size"
    print(estimate_size_in_bytes, units = "auto")
}
```

For the entire "Electric power consumption" dataset consisting of 2,075,259 rows and 9 columns, the following was estimated for the data size in bytes in memory:

For 2,075,259 rows, estimating 6 numbers per row in a numeric format:

```
predict_data_size(2075259 * 6, "numeric")
```

```
## 95 Mb
```

Predicted data size per column = 95 Mb Multiply by 9 columns

```
142.5 * 9
```

```
## [1] 1282
```

Total predicted data size = 1,282.5 or approximately 1,300 Mb or 1.3 Gb My computer has approximately 5.5 GB available RAM, so this should not be a problem.