EV Power - Lab 4 Project Report

Example Solution 1

Part 0: libraries

```
library(tidyverse)
```

```
── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0
──
✔ dplyr     1.1.4     ✔ readr     2.1.5
✔ forcats   1.0.1     ✔ stringr   1.5.2
✔ ggplot2   4.0.0     ✔ tibble    3.3.0
✔ lubridate 1.9.4     ✔ tidyr     1.3.1
✔ purrr     1.1.0
── Conflicts ────────────────────────────────────────── tidyverse_conflicts()
──
✖ dplyr::filter() masks stats::filter()
✖ dplyr::lag()    masks stats::lag()
ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all
conflicts to become errors
```

```
  library(readr)
```

Part 1: Defining Research Question

Chosen Question: Which region rely heavily on nonrenewable energy sources?

Part 2: Data Preparation and Cleaning

```
avg_price<-read.csv("data/av-energy-
price-2021-2023.csv",skip=2,header=T,sep=",",quote="")
ev_reg<-read.csv("data/ev-registrations-by-state-2023.csv",skip=2,header=T)
renew_use2021<-read.csv("data/renew-use-2021.csv")
renew_use2022<-read.csv("data/renew-use-2022.csv")
renew_use2023<-read.csv("data/renew-use-2023.csv")
total_use2021<-read.csv("data/total-use-2021.csv")
total_use2022<-read.csv("data/total-use-2022.csv")
total_use2023<-read.csv("data/total-use-2023.csv")
```

Part 3: Joining / Pivoting Datasets for Analysis

Part 4: Mapping Visualization