

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(janitor)
```

Attaching package: 'janitor'

The following objects are masked from 'package:stats':

chisq.test, fisher.test

```
library(maps)
```

Attaching package: 'maps'

The following object is masked from 'package:purrr':

map

```
library(sf)
```

```
Linking to GEOS 3.13.0, GDAL 3.8.5, PROJ 9.5.1; sf_use_s2() is TRUE
```

Part 1: Defining Research Question

Chosen Question: Do states with higher renewable energy share also show stronger EV adoption in 2023?

Part 2: Data Preparation and Cleaning

Load CSVs

```
renew <- read_csv("data/renew_use_2023.csv") |> clean_names() total <- read_csv("data/  
total_energy_use_2023.csv") |> clean_names() ev <- read_csv("data/ev-registrations-  
by_state_2023.csv") |> clean_names()
```