DESCRIPTION OF DOCUMENTATION FOR:

Rural Electrification in sub-Saharan Africa: A Tier-Study of Electrification Mechanisms and their Practicality

Carletta (2017)

The data management and analysis for the paper were conducted using R version 3.3.1 "Bug in Your Hair" using RStudio version 1.0.136 It has been written to run on a Windows or Mac operating system. In addition to the base R package, several packages are used. These can be seen at the top of the Rmd document loaded in the first code chunk.

The paper was knitted to pdf using the **elsevier article** format contained in the **rticles** package. Knitting to pdf requires a LaTeX installation on your computer, though you will not need to write any LaTeX code directly.

The documentation is organized into three main directories (listed in order of importance for reproduction of results):

- **Source code:** Here you will find the Rmd file that reproduces the entire paper, along with all auxiliary files created in process of knitting the pdf.
- **Processing and analysis:** All of the analyses derived from the original data is cleaned within the code in the body of the paper.
- **Original Data and Metadata:** contains the data I collected in the most original form possible. The data was collected through the World Bank, specifically the World Development Indicators Page. Here, I was able to select variables I was most interested in that were most related to my project. After creating a data set using the query tool, I cleaned the data in the body of my paper.

To reproduce all results reported in paper:

Copy the **Documentation** folder to your computer. Make sure to leave the folder structurally intact. The code has relative paths to the data and supplementary code that assume the data is in this folder structure. The Documentation folder can be moved or renamed as necessary, but everything else must remain unchanged.

Open the Rmd file in the **Source Code** folder using R Studio. Make sure all required packages are installed.

Run all code in the file. If the output format is changed to an R notebooks format, the chunks can be run one at a time to see individual results.

Knit the file to **elsevier_article**. (Knitting to other pdf formats should change only the formatting. You must have a LaTeX installation on your computer to do this.