|  |
| --- |
| ETL Project  Report |
| Cluny Charleston  Alim Memon  Monali Patel  Evan Sims |
| May 23, 2020  Rutgers University Data Science Bootcamp |





# United States Renewal Energy Consumption

|  |
| --- |
| **Abstract** The purpose of this project is to merge datasets, transform and place them in one database using multiple sources. We encountered some issues while working on this project. Some of the challenges include when converting one unit to another, when merging the tables, the values did not import correctly and to make sure that the changes reflected everywhere.  Introduction  The United States consume a lot of energy and it comes from multiple sources. Renewable energy is important because it limits the fuel amount used on a regular basis that causes a stress on the environment. For this project, data was extracted from a series of csv files.  *Source 1* (<https://www.eia.gov/state/rankings/>) is the energy rankings of states.  *Source 2 (*<https://data.world/doe/united-states-renewable-energy>) lists the different renewable sources of energy.  *Source 3 (http://www2.census.gov/programs-surveys/popest/datasets/2010-2019/national/totals/nst-est2019-alldata.csv?# )* is a table of states and population.  Because we are interested in renewable energy consumption, our data sources reflect only the population and the energy usage. During this we transformed our datasets by cleaning, converted the unit into gigawatt/hour, calculated the usage for the states overall since the data collected was given per capita and summed the different types of energy. Finally, the product was imported and loaded into a created database.    Techniques and tools  To complete this project, we used:   * Jupiter notebook * Postgres SQL * We created a data frame of our set of data * Gathered the data * Merged * Created schemas tables * Graphed an ERD diagram * Created the table   Results  This work highlights the types of energy consumption per state and with the new database created more information is available for analysis. |
| Source 1: <https://www.eia.gov/state/rankings/>  Source 2: <https://data.world/doe/united-states-renewable-energy>  Source 3: https://en.wikipedia.org/wiki/List\_of\_states\_and\_territories\_of\_the\_United\_States\_by\_population |
|  |