

Data Processing/Cleaning Changelog

3/4/2025

- Sheet Electricity Generation: Table 7.2b
 - Removed table formatting and extra rows
 - Included units in all column headers
 - Replaced all “Not Available” with blank cells
 - Converted values to number data type
 - Converted units to base SI (Million kWh- > kWh)
 - Copied resulting values to separate sheet for analysis
- Sheet Fossil Fuel Consumption: Table 7.4b
 - Removed table formatting and extra rows
 - Included units in all column headers
 - Removed 2024 row
 - Replaced all “Not Available” with blank cells
 - Removed prefix thousand from barrel/short tons units
 - Converted all fields to have units of metric tons using the following conversions
 - 1 short ton = 0.9071847 metric tons
 - 1 barrel of residual/distillate fuel oil = 0.157 metric tons
 - 1 barrel of non-fuel oil petroleum liquids ~ 0.1052 metric tons
 - Averaging conversion values from ethane (0.059), liquified petroleum gas (0.086), gasoline (0.12), kerosene (0.127), gas oil/diesel (0.134) to estimate overall conversion
 - Values are small compared to other petroleum products, so slight errors will not cause an issue in analysis
 - 1 billion cubic feet of natural gas = 0.024 million metric tons of oil equivalent
 - 1 trillion BTU = 0.025 million metric tons of oil equivalent
 - Used to estimate the amount of wood, waste, and other consumption to generate electricity based on natural gas equivalence
 - Values are comparatively small so an error will not cause an issue in later analysis
 - Converted values to number data type
 - Copied resulting values to separate sheet for analysis
- Sheet CO2 Emissions: Table 11.6
 - Removed table formatting and extra rows
 - Included units in all column headers

- Replaced all “Not Available” with blank cells
- Converted units from million metric tons of CO2 to metric tons of CO2
- Converted values to number data type
- Copied resulting values to separate sheet for analysis

3/6/2025

- Sheet Uranium Consumption: Table 8.2
 - Removed table formatting and extra rows
 - Included units in all column headers
 - Replaced all “Not Available” with blank cells
 - Replaced all “Withheld” with blank cells
 - Replaced all “Not Applicable” with blank cells
 - Removed “Average Price of Purchased Imports” and “Average Price of Domestic Purchases” columns
 - Converted units from million pounds of uranium oxide to metric tons of uranium
 - Converted values to number data type
 - Copied resulting values to separate sheet for analysis
- Sheet Nuclear Waste: PNNL Uranium Waste
 - Removed table formatting and extra rows
 - Removed “BWR Number of discharged assemblies”, “PWR Number of discharged assemblies”, “BWR Average initial enrichment (Weight % U-235) of discharged assemblies”, “PWR Average initial enrichment (Weight % U-235) of discharged assemblies “, “Cumulative total number of discharged assemblies “, and “Cumulative total metric tons of initial heavy metal (MTiHM) of discharged assemblies “ columns
 - Converted values to number data type
 - Copied resulting values to separate sheet for analysis

3/11/2025

- Replaced all empty cells with #N/A value to prevent automatic zero when plotting/calculating

Data Cleaning Updated: 3/11/2025