Name: _____ Date: _____ Period: _____

Energy Data Jam

Goal - Examine New Mexico energy consumption data, and then design a creative project that explains one part of these data to a non-scientist audience. A good Data Jam project is:

  Clear: Represent the data accurately and in a way that is understandable to non-scientists. <u>Make sure to include a legend explaining how you represent the data</u> (e.g., one light bulb picture represents 1% of total residential energy use).

  Creative: Use your imagination! Whether you choose to make an infographic or to write a poem, try to make your data presentation as creative as possible!

  Concise: Keep it short and to the point. Focus on one important trend in the data.

Project Directions
  1. Decide if you would like to work alone or with one or two other students to complete your Energy Data Jam project.
  2. Fill out the Planning and Brainstorming Notes section below.
  3. Create your project (infographic or poem) and prepare it for the gallery walk.

Planning and Brainstorming Notes

  1. Look at both datasets carefully and list trends you might like to explain to your audience. What are some things you notice about the data?

  2. Choose the type of creative project you will make (circle one):   Infographic   Poem

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Data: New Mexico Energy Consumption by Source

These data were compiled by the U.S. Energy Information Administration (eia.gov). Consumption estimates are presented in trillion British Thermal Units (Btu). A Btu is the quantity of thermal energy required to raise the temperature of one pound of water by 1° F.

Table 1: New Mexico Energy Consumption Estimates 2021

Category	Nonrenewable (N) or Renewable (R)	Consumption Estimates (in trillion Btu)
Nuclear Electric Power	N	0.0
Geothermal	R	0.5
Hydroelectric Power	R	1.1
Jet Fuel	N	6.3
Solar	R	9.0
Biomass	R	21.1
Other Petroleum	N	23.5
Wind	R	49.3
Distillate Fuel Oil (most sold as diesel fuel)	N	114.4
Motor Gasoline (excluding ethanol)	N	113.2
Coal	N	133.2
Natural Gas	N	285.8

New Mexico Energy Consumption by Source 2021
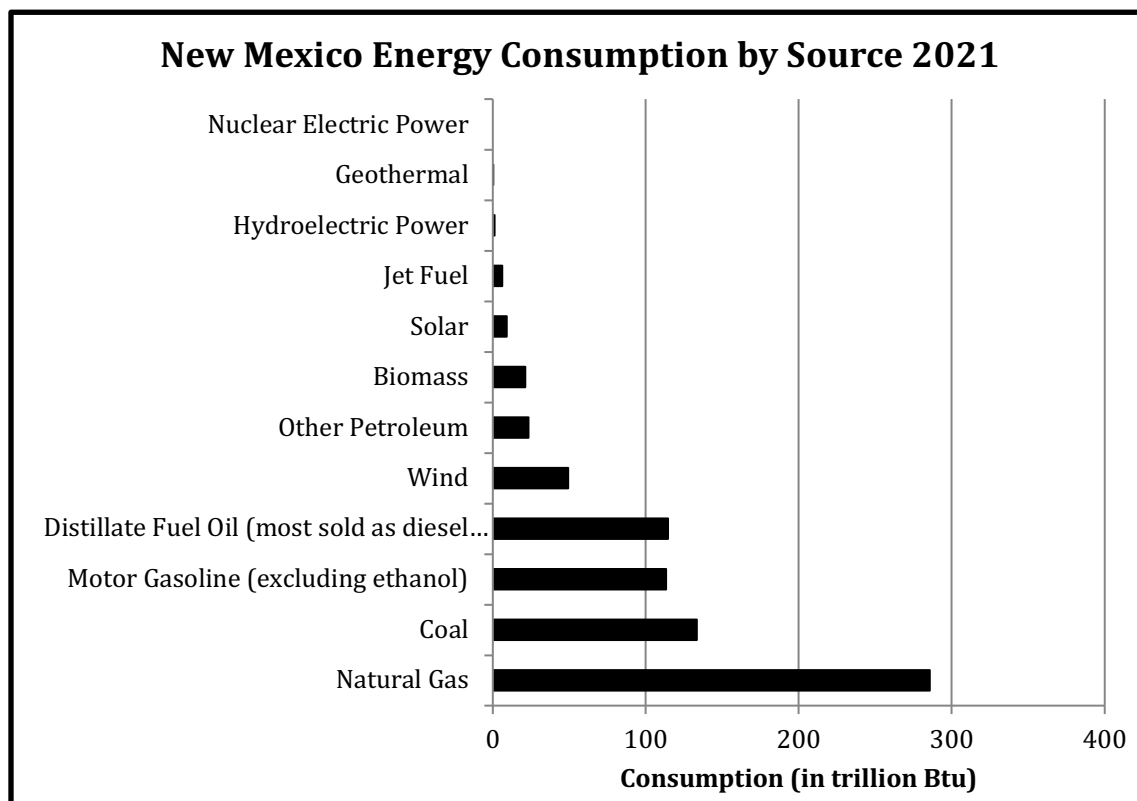
Data: New Mexico Energy Consumption by End-Use Sector

These data were compiled by the U.S. Energy Information Administration (eia.gov). Consumption estimates are presented in trillion British Thermal Units (Btu). A Btu is the quantity of thermal energy required to raise the temperature of one pound of water by 1° F.

Table 2: New Mexico Energy Consumption by End-Use Sector 2021

Sector	Definition	Consumption (in trillion Btu)	Percent of Total Use
Industrial	Manufacturing establishments or those engaged in mining or other mineral extraction as well as consumers in agriculture, forestry, and fisheries. Also includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.	237.9	35%
Transportation	All vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Includes automobiles, trucks, buses, motorcycles, trains, subways, aircraft, ships, and barges.	238.2	35%
Commercial	Nonmanufacturing establishments or agencies primarily engaged in the sale of goods or services. Includes hotels, restaurants, wholesale and retail stores, and other service enterprises.	102.1	15%
Residential	Private dwellings, including apartments.	105.9	15%

New Mexico Energy Consumption by End-Use Sector (2021)
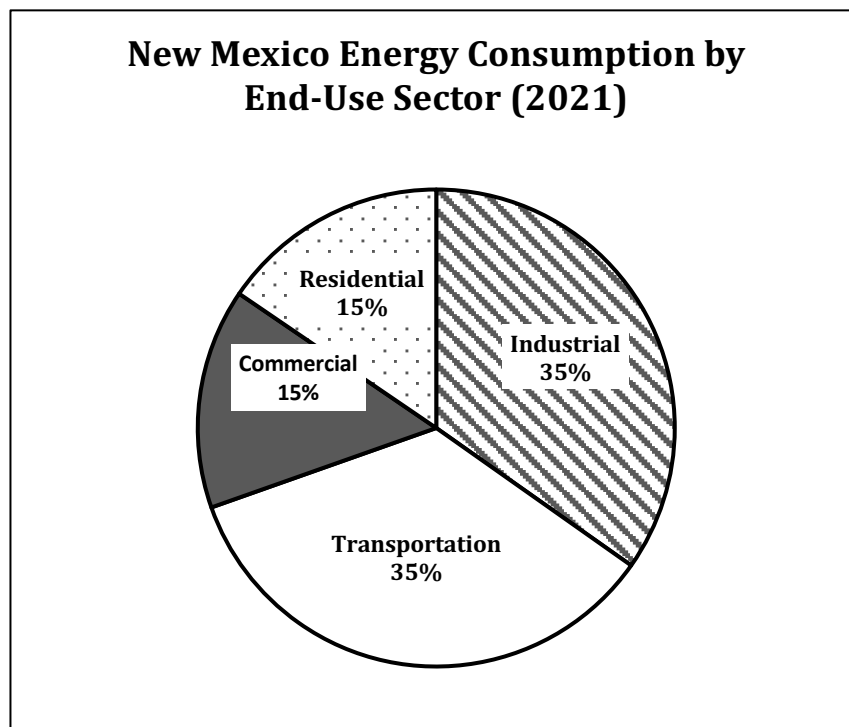
Energy Data Jam Gallery Walk Preparation

Each group will display their Energy Data Jam project to the rest of the class during a gallery walk. To be sure that your classmates understand your creative project, include the following on your creative project or on a separate piece of paper near your creative project while it is on display.

3. Names of all the <u>students</u> who worked on the project.

4. The <u>title</u> of your project. Make sure it is descriptive.

5. List the <u>data trend</u> you are trying to communicate through your project.

6. Summarize a larger trend presented in these energy consumption datasets.

7. Is the trend you identified in #6 a problem in New Mexico? Why or why not?

8. Brainstorm possible solutions to reverse this trend.