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## Visualizing the Energy Production, Imports and Exports for Countries

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There are extensive conceptual difficulties in understanding a country's energy story. Every country in the world uses some combination of energy production, imports, and exports energy to meet their society's needs. Thermal inefficiencies converting primary energy into electricity further confuse the issues. A visualization using large, publicly available data can help illustrate these different energy perspectives. This data visualization helps clarify the following perspectives: Production, Imports, Exports, Total Primary Energy Supply (TPES), Total Final Consumption (TFC), and the conversion losses from turning TPES into TFC. TPES refers to the total amount of energy a country obtains directly from natural resources such as fossil fuels or wind. TFC refers to the addition of the all energy directly consumed by a user for an energy service such as electricity for lighting in a house. This paper discusses the interactive simulation that was built to allow users to explore the composition of a country's energy production, imports and exports through the conversion into energy people consume. The simulation allows users to explore the energy stories for different countries, and how these change over the decades.