

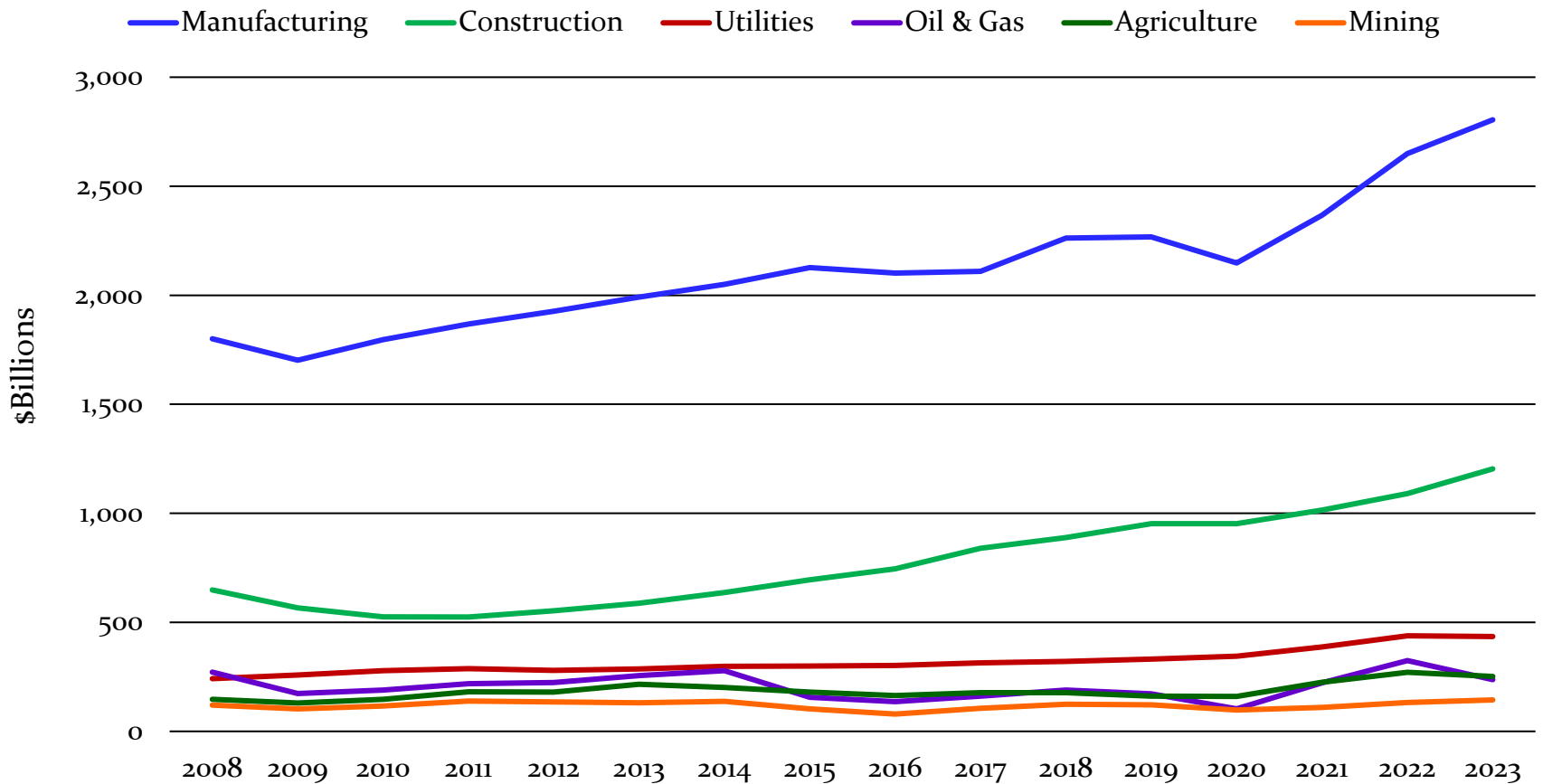
U.S. Manufacturing Climate Success Story

Industrial Energy Consumers of America
2024



U.S. Manufacturing Outperforms Other Sectors on Climate Change

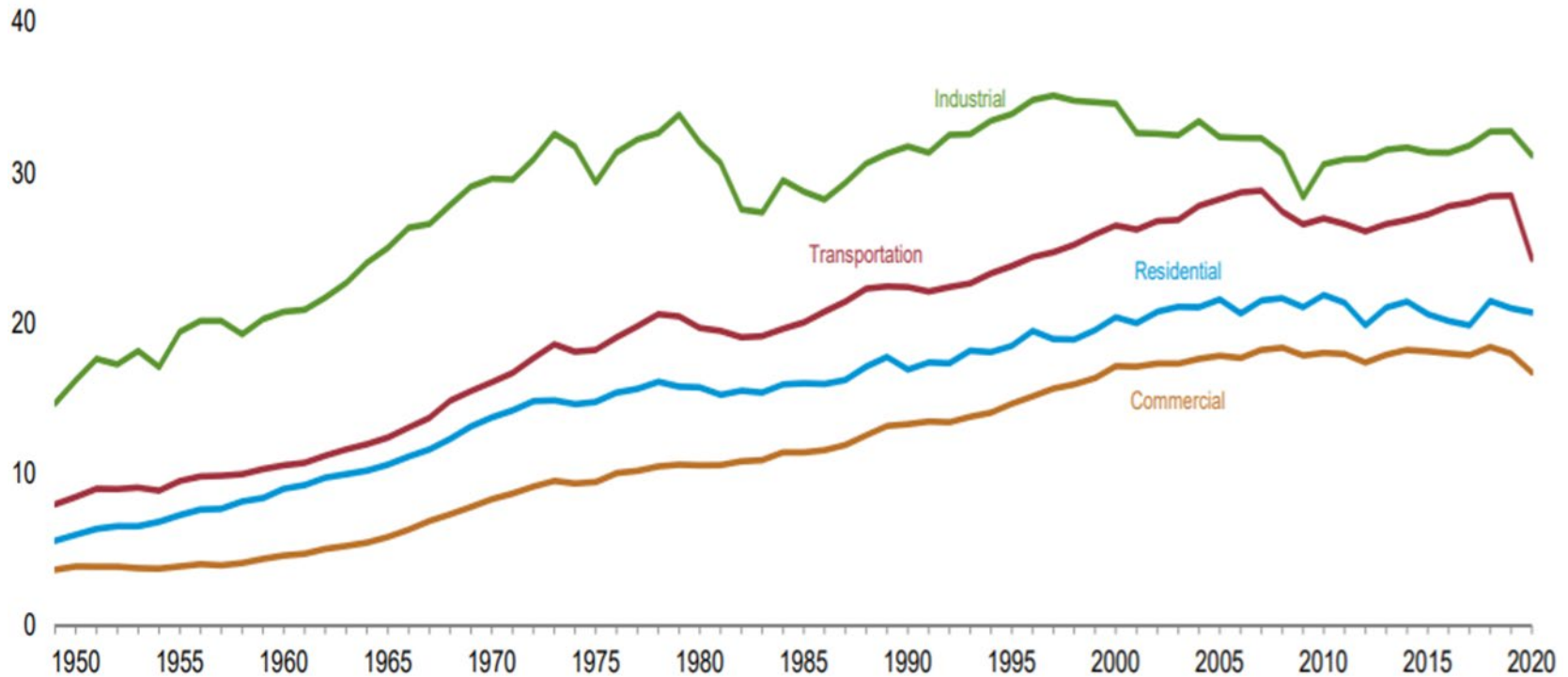
U.S. Manufacturing is a Significant GDP Contributor



Source: U.S. Bureau of Economic Analysis (BEA)

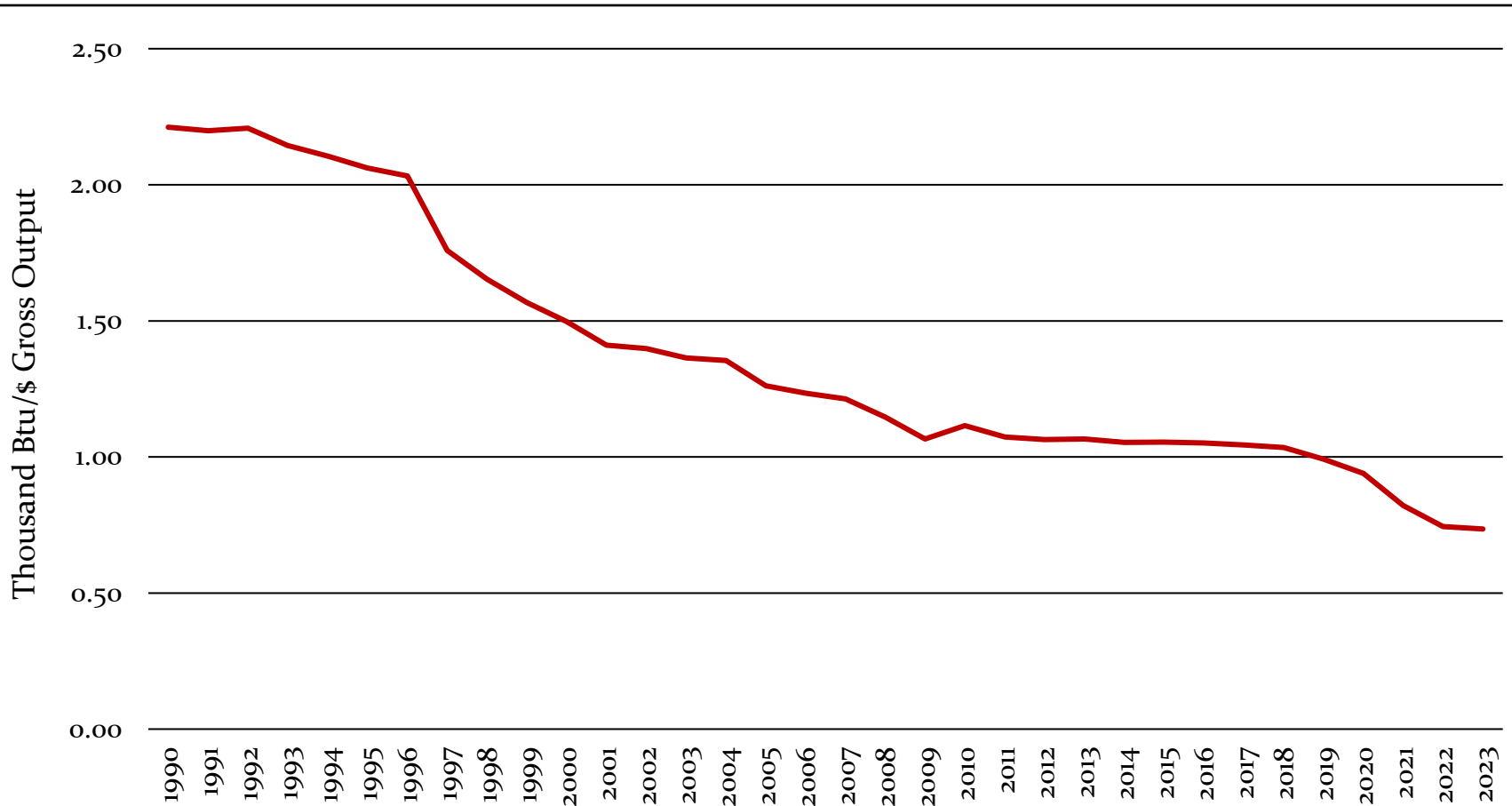
U.S. Manufacturing Direct and Indirect Energy Consumption Has been Flat for 50 Years (1970-2020)

Total Consumption by End-Use Sector, 1949–2020



Source U.S. Energy Information Administration (EIA)

Since 1990, U.S. Industrial Energy Intensity Decreased by 67%

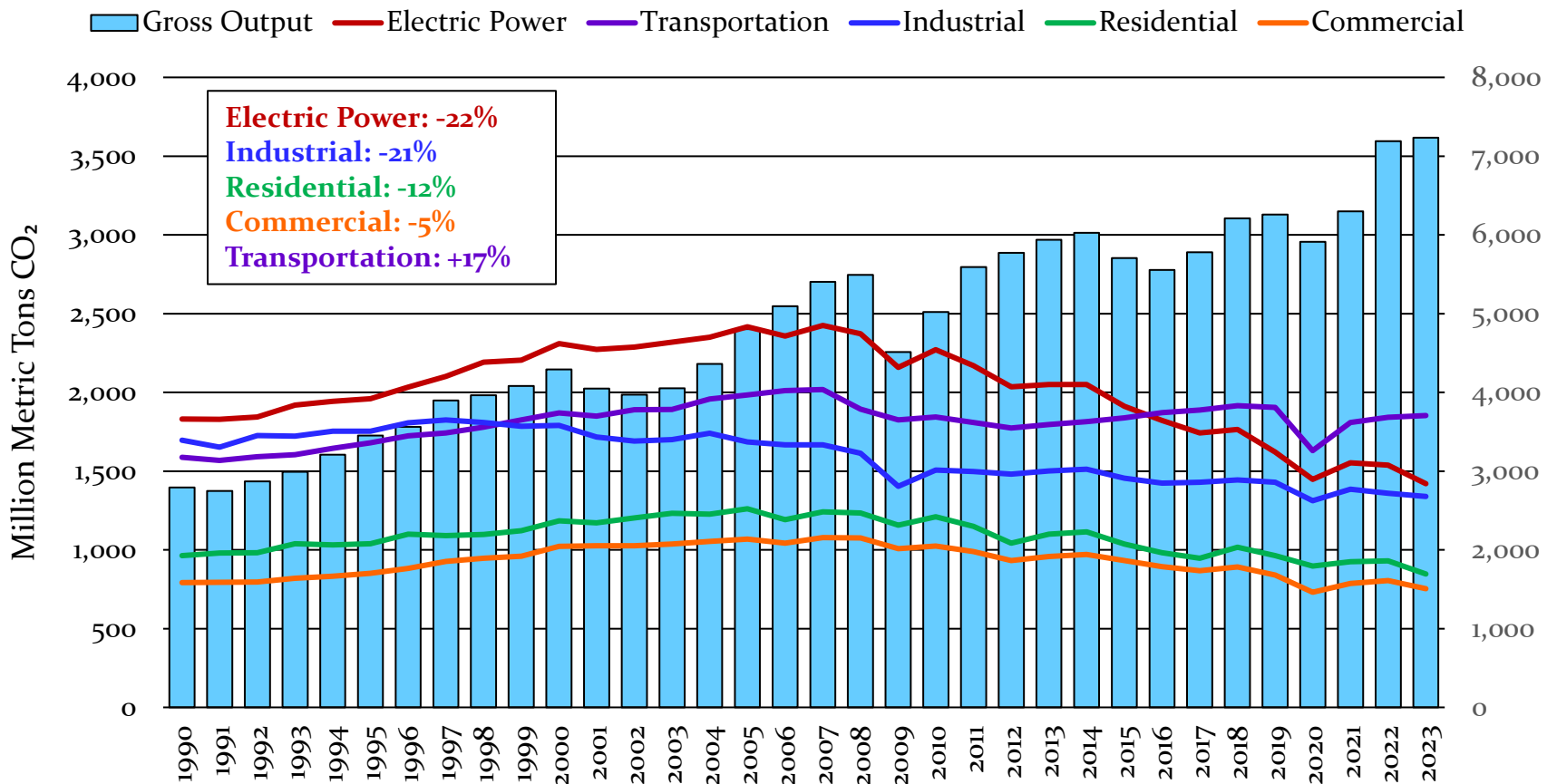


Source: U.S. Energy Information Administration (EIA), U.S. Bureau of Economic Analysis (BEA)



Gross Output: Consists of sales, or receipts, and other operating income, plus commodity taxes and changes in inventories.

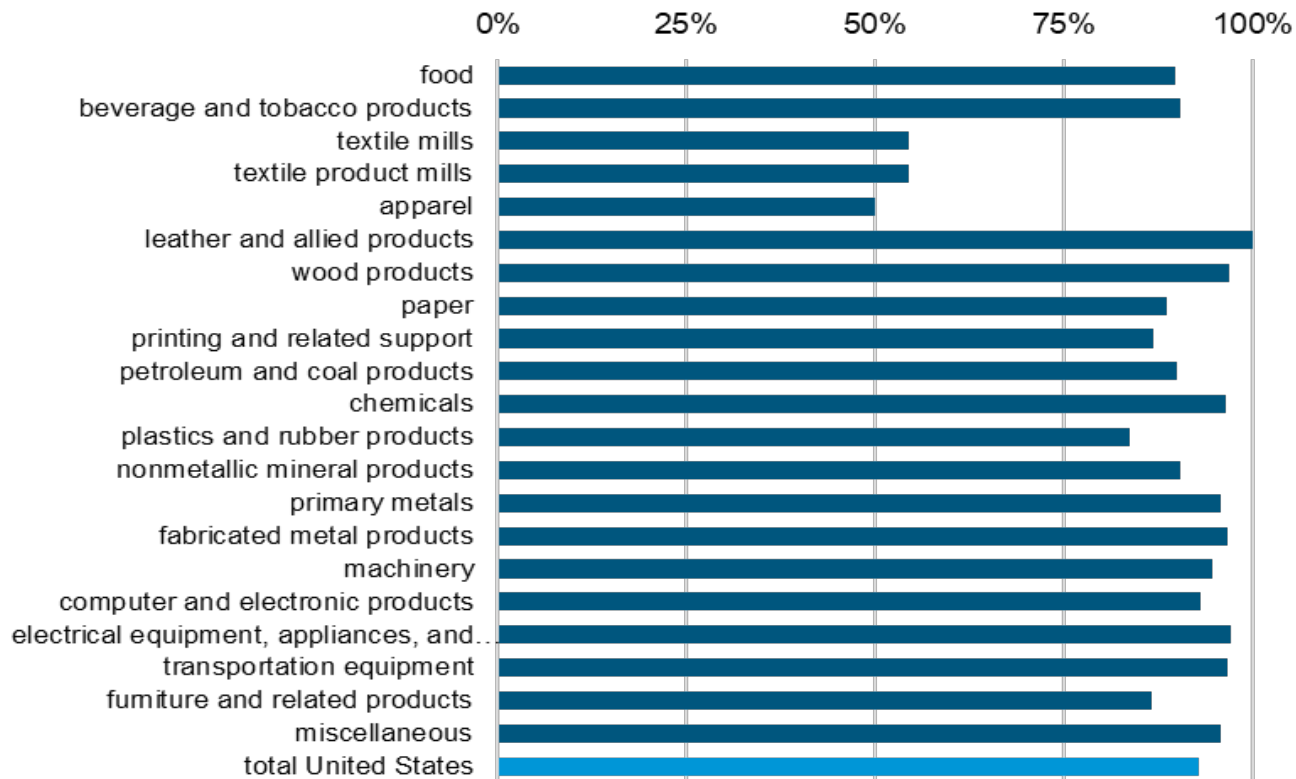
Since 1990, U.S. Manufacturing Has Reduced Direct CO₂ Emissions by 21%, While Manufacturing Gross Output Increased by 159%



Source: Monthly Energy Review, U.S. Energy Information Administration (EIA); U.S. Bureau of Economic Analysis (BEA)

EIA Reports that Most U.S. Manufacturing Sectors Cannot Switch from Natural Gas to Another Fuel

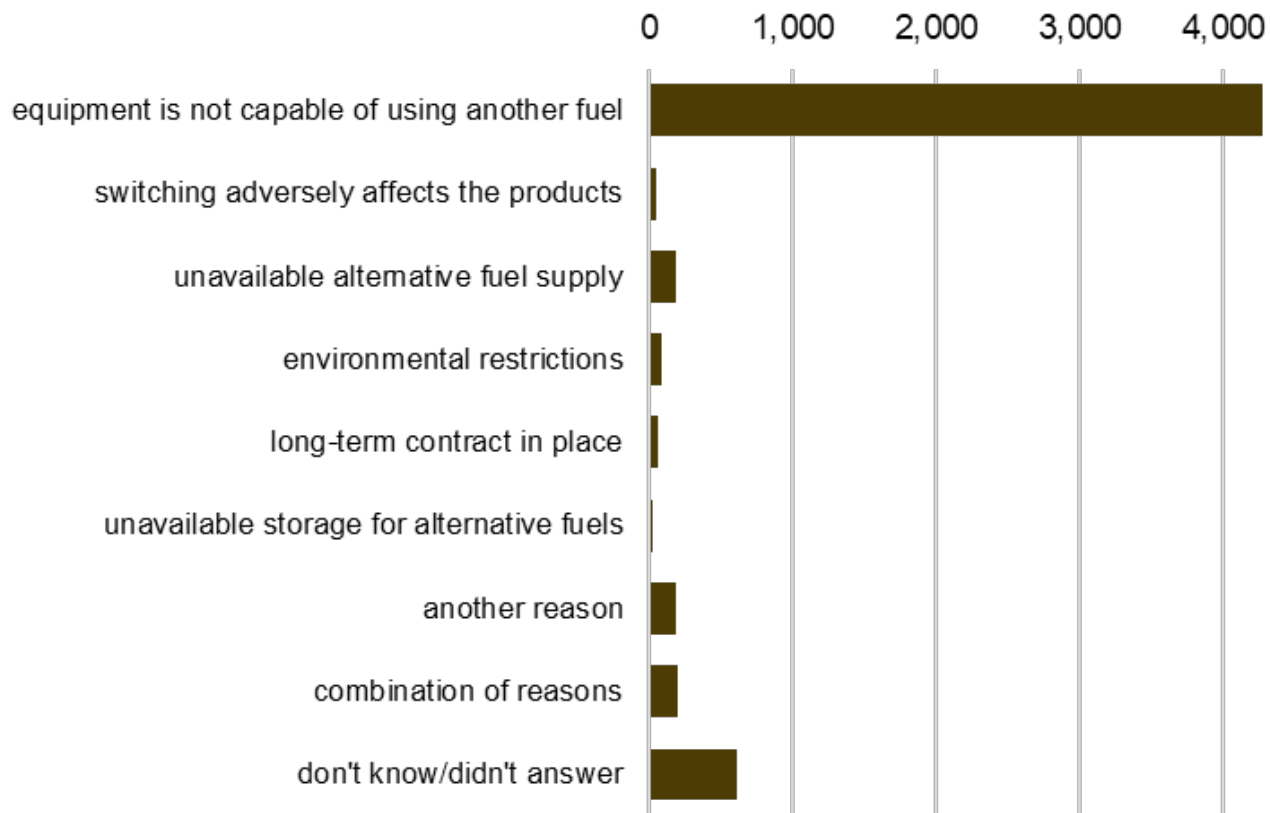
Non-switchable natural gas percent used by sector (percentage)



Source: U.S. Energy Information Administration (EIA) MECS 2018

EIA Reports that Due to Equipment Limitations, Most Natural Gas Cannot Be Switched to Another Fuel

Natural gas fuel switching limitations by reason (billion cubic feet)



Source U.S. Energy Information Administration (EIA) MECS 2018

2025 Climate Legislation Directed at Manufacturing GHG Emissions

- Carbon Border Adjustment Mechanism (CBAM) legislation:
 - S. 3422 Senator Whitehouse (D-RI);
 - S.3198 Senator Cassidy (R-LA)
- Sept: White House “Task Force on Climate, Trade and Industrial Competitiveness” has announced a pilot project to gather GHG intensity information on EITE industries.

Carbon Border Adjustment Mechanism (CBAM)

- **CBAM: The most consequential climate policy for manufacturing!!**
- The U.S imports more embedded carbon in products than any country in the world.
- U.S. manufacturing: low carbon intensive.
- Would impose a carbon tariff on imported products with higher carbon intensity.

Carbon Border Adjustment Mechanism (CBAM)

- Focused primarily on EITE products: chemicals, steel, aluminum, glass, cement, paper, etc.
- EU in implementation phase.

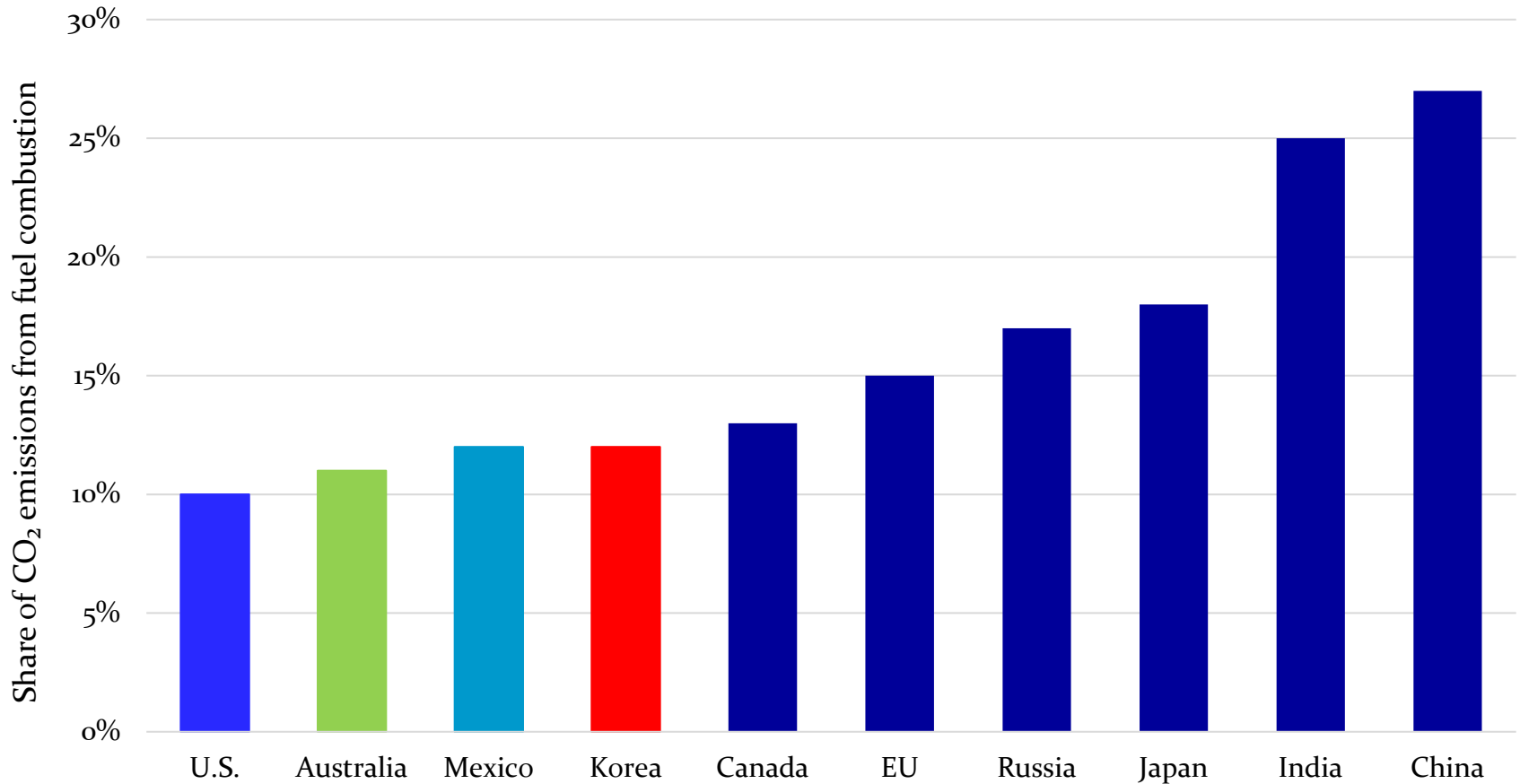
Carbon Cap and Trade

- “Carbon Cap & Trade” legislation. HR 9230, Tonko-(D-NY)
- Sets a cap on GHG emissions and requires scheduled reduction levels.
- Provides allowances to EITE industries.
- Results in “carbon leakage.” Companies move facilities offshore.

Tax CO2 for Revenue

- Democrats introduce “The Polluter Pays Climate Fund”: H.R. 9573/S. 5054:
- Imposes a fee on companies responsible for emitting 1 billion tons of GHGs from 2000 to 2022. Raises \$1 trillion.

As Compared to the U.S., China and India's CO2 Emissions are 2.7 Times and 2.5 Times Higher



Source: Greenhouse Gas Emissions from Energy, International Energy Agency (IEA)

China Manufacturing CO₂ Emissions/Value Added Are 3.8 Times Higher Than U.S. Manufacturing

Country	Manufacturing – Value Added (\$Billions, 2022)	Manufacturing Industries and Construction (Million tonnes of CO ₂ , 2021)	Million Tonnes of CO ₂ /Manufacturing Value Added
EU	2,497.0	379.5	0.15
U.S.	2,497.1	445.8	0.18
China	4,975.6	2,834.4	0.57
India	456.1	559.4	1.23

Source: Greenhouse Gas Emissions from Energy, International Energy Agency (IEA)
The World Bank, <http://data.worldbank.org/indicator/NV.IND.MANF.CD>



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