

Energy Related Flow Diagrams

Domestic Energy and Global Coal, Oil, and Natural Gas Flows

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Strategic Energy Analysis & Planning

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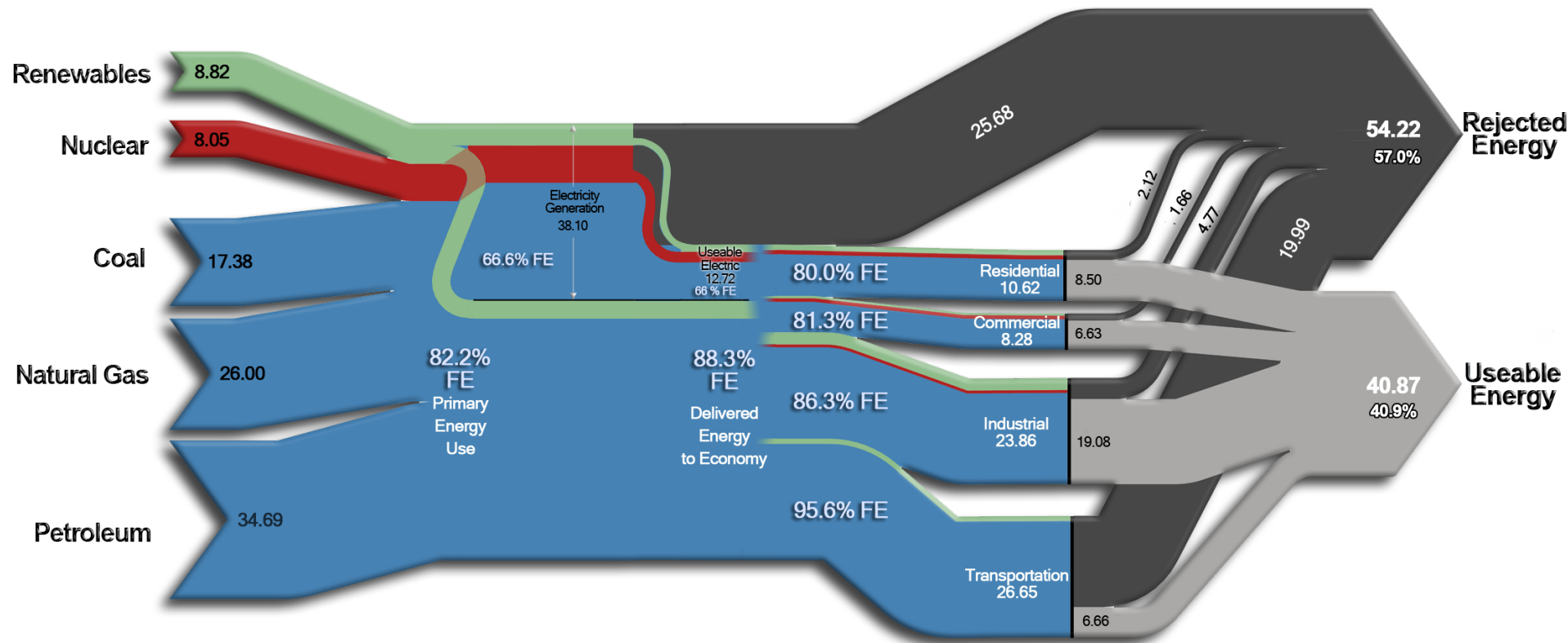
U.S. DEPARTMENT OF

ENERGY

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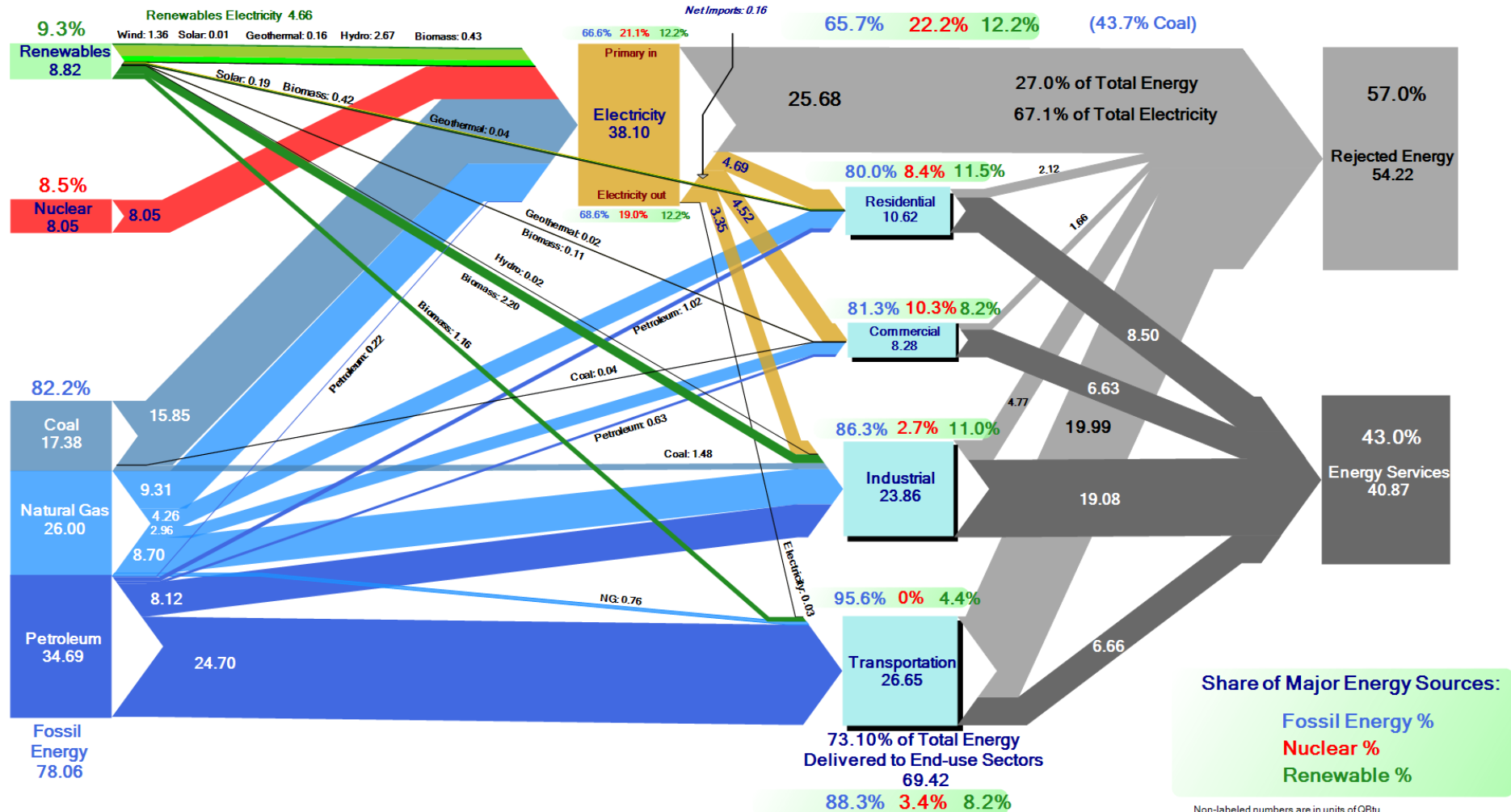
Estimated U.S. Energy Use in 2012: 95.1 Quads

Contributions of Major Energy Sources



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Contributions of Major Energy Sources



U.S. Fossil Energy Production and Trade

2012

Imports

Petroleum
23 Qbtu
3.9 Billion Barrels

Coal
0.2 Qbtu
9.2 Million Tons

Natural Gas
3.2 Qbtu
3.1 TCF

Production

Petroleum
17 Qbtu
3.2 Billion Barrels

Coal
20 Qbtu
1,016 Million Tons

Natural Gas (dry)
24 Qbtu
24 TCF

Gross Heating Values

Gasoline	20,500 Btu/lb
LNG	22,300 Btu/lb
Crude Oil	18,300-19,500 Btu/lb
Coal (Bituminous)	10,200 – 14,600 Btu/lb
Ethanol	11,600 Btu/lb

1 ton LNG ~ 44,192 ft³ ~
47 million Btu

Exports

Petroleum
6.6 Qbtu
1.2 Billion Barrels

Coal
3.2 Qbtu
126 Million Tons

Natural Gas
1.6 Qbtu
1.6 TCF

Approximate
Heat Content

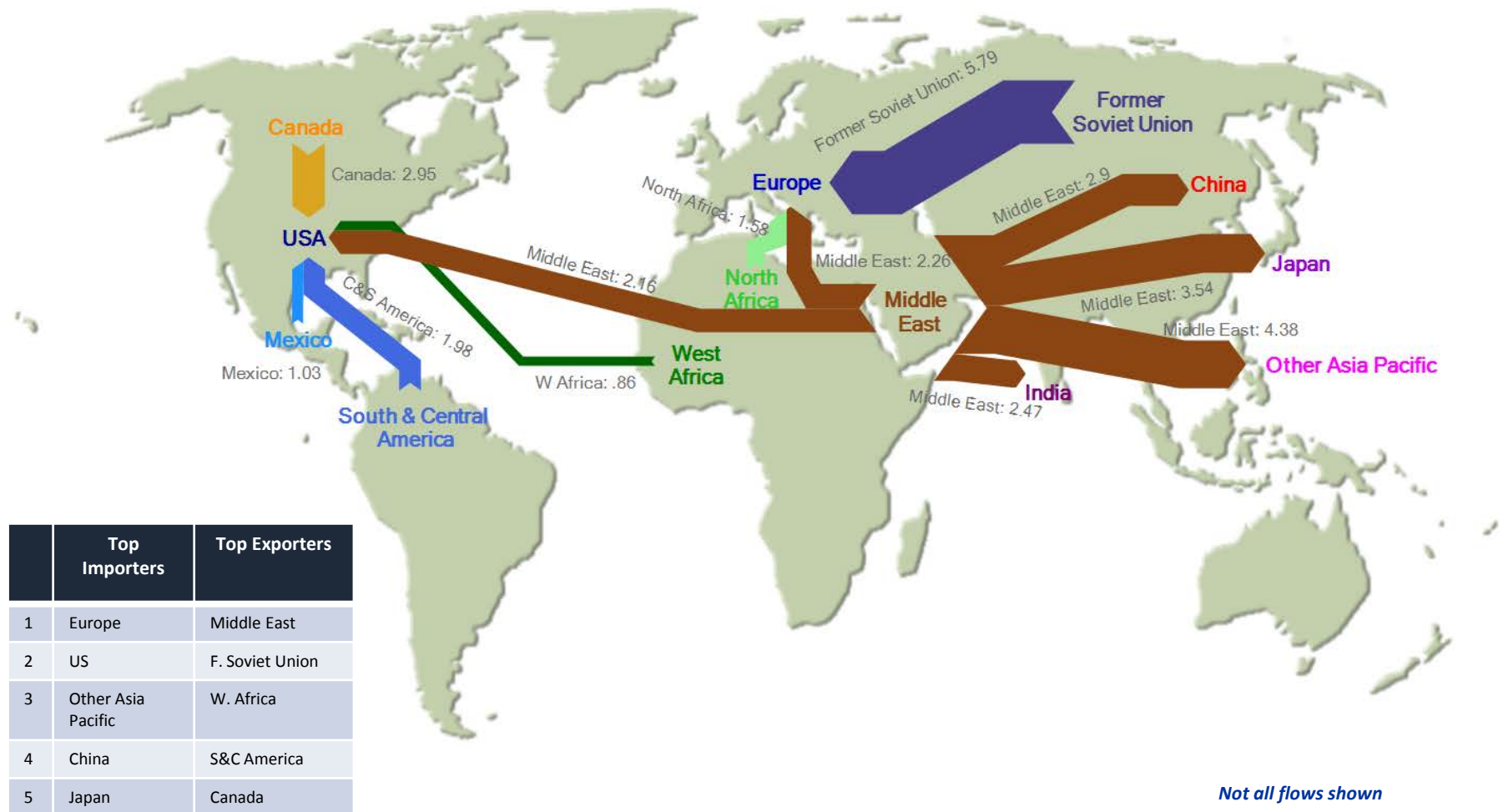
	Imports	Production	Exports
Petroleum	5.555 mmBtu/Barrel	(5.8, 3.675) ^a mmBtu/Barrel	5.619 mmBtu/Barrel
Coal	25 mmBtu/Ton	20.136 mmBtu/Ton	25.645 mmBtu/Ton
Natural Gas	1,025 Btu/FT ³	1,022 Btu/FT ³	1,009 Btu/FT ³

Legend

- Eastern Coal
- Interior Coal
- Western Coal
- Major Shale Play
- Oil/Gas Field
- Shale-Coal Overlap
- Shale-Oil/Gas Overlap

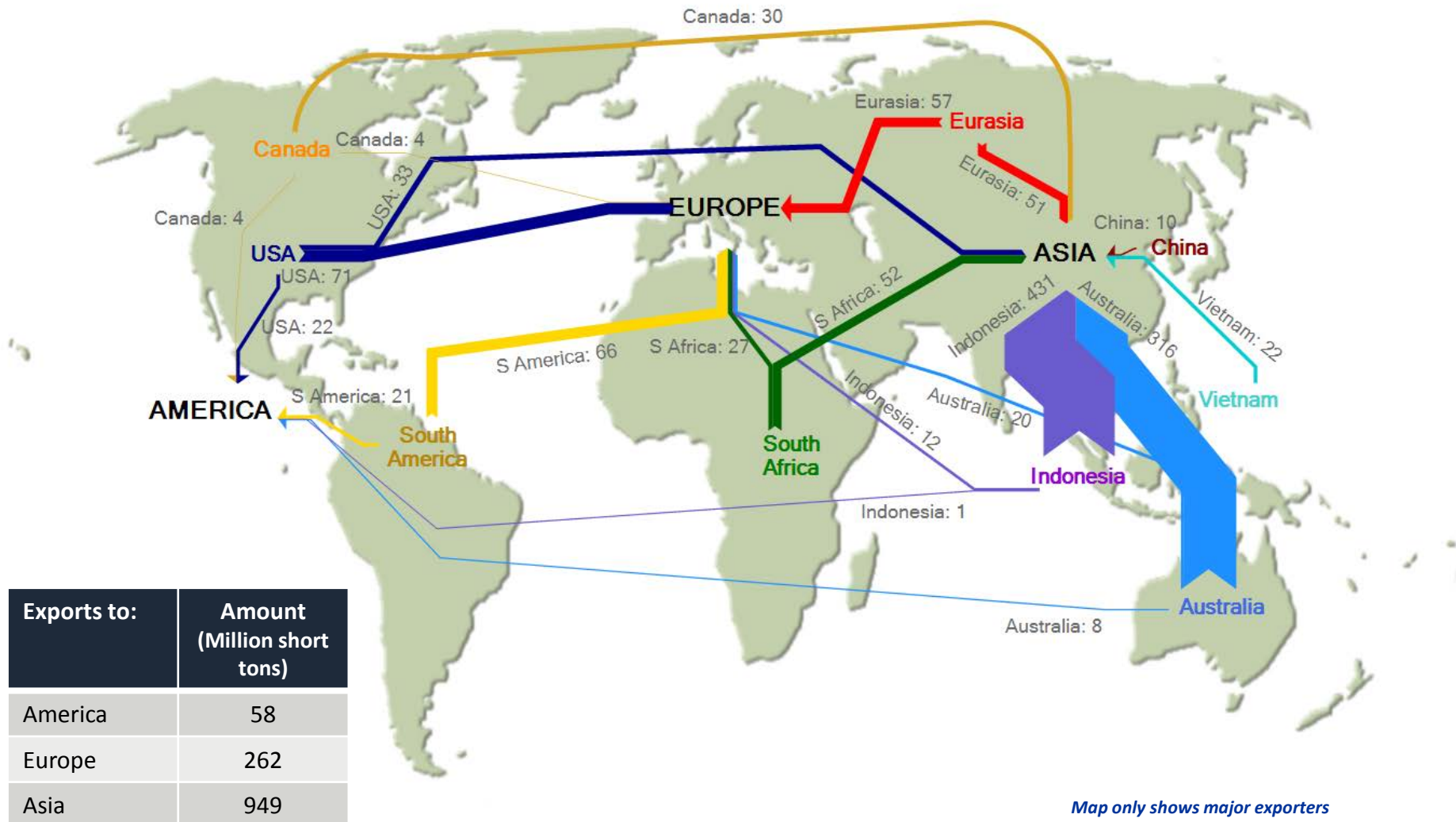
Largest International Oil Market Flows

Year 2012 in Million Barrels per day



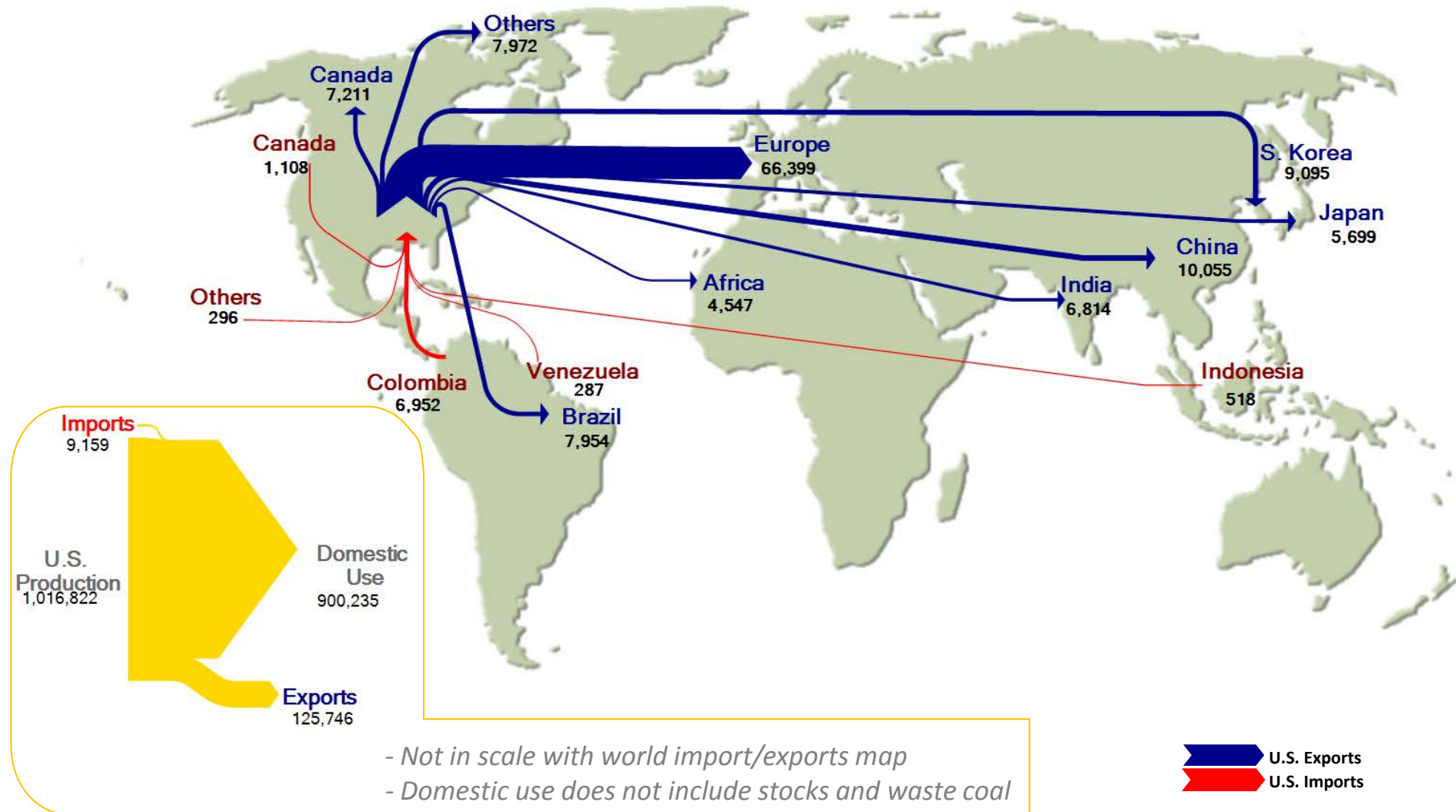
Top Coal Exports to America, Asia, and Europe

Year 2012 in Millions of Short Tons



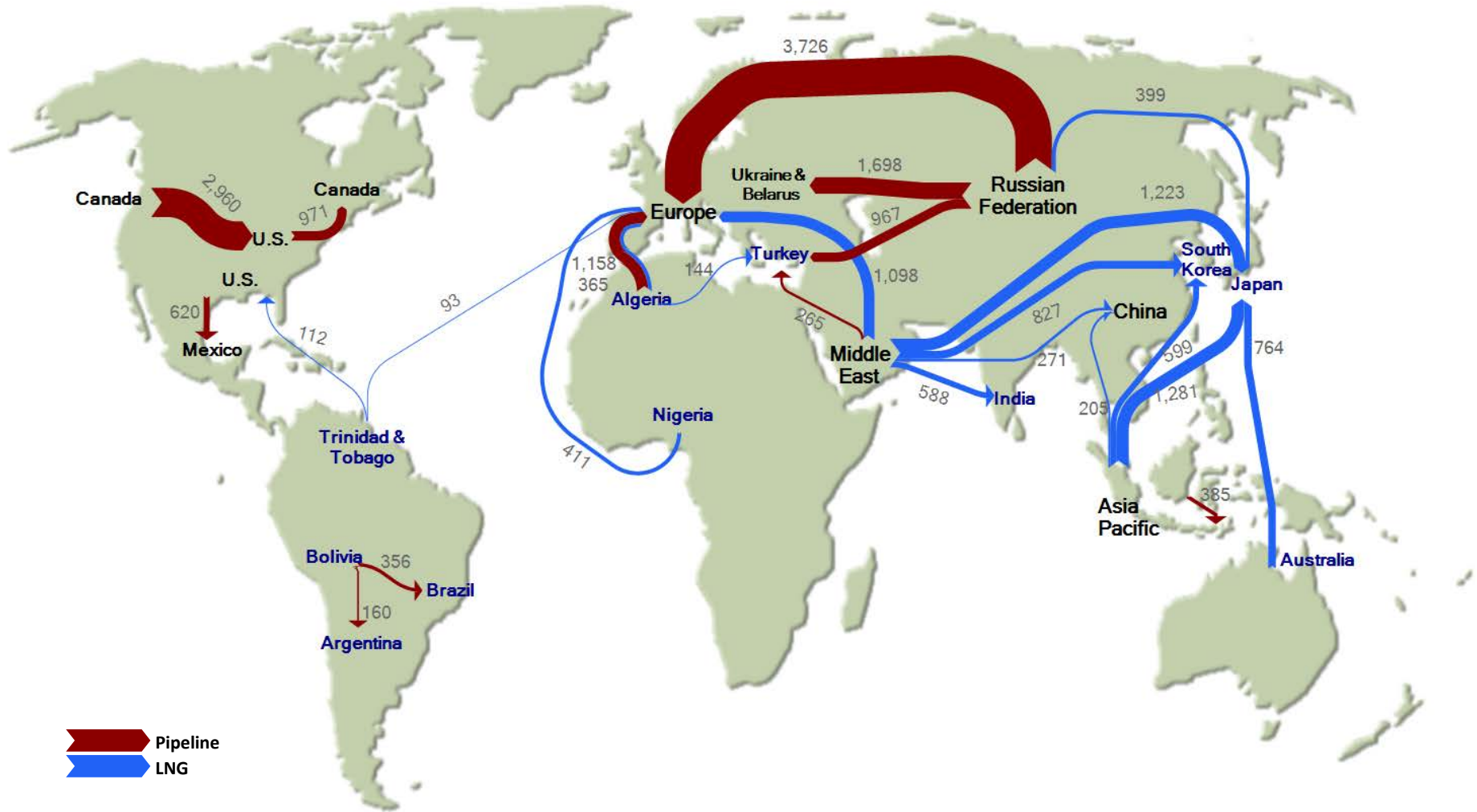
U.S. Coal Imports and Exports

Year 2012 in 1,000's of Short Tons



Largest International Natural Gas Market Flows

Year 2012 in Billion Cubic Feet



Not all flows shown