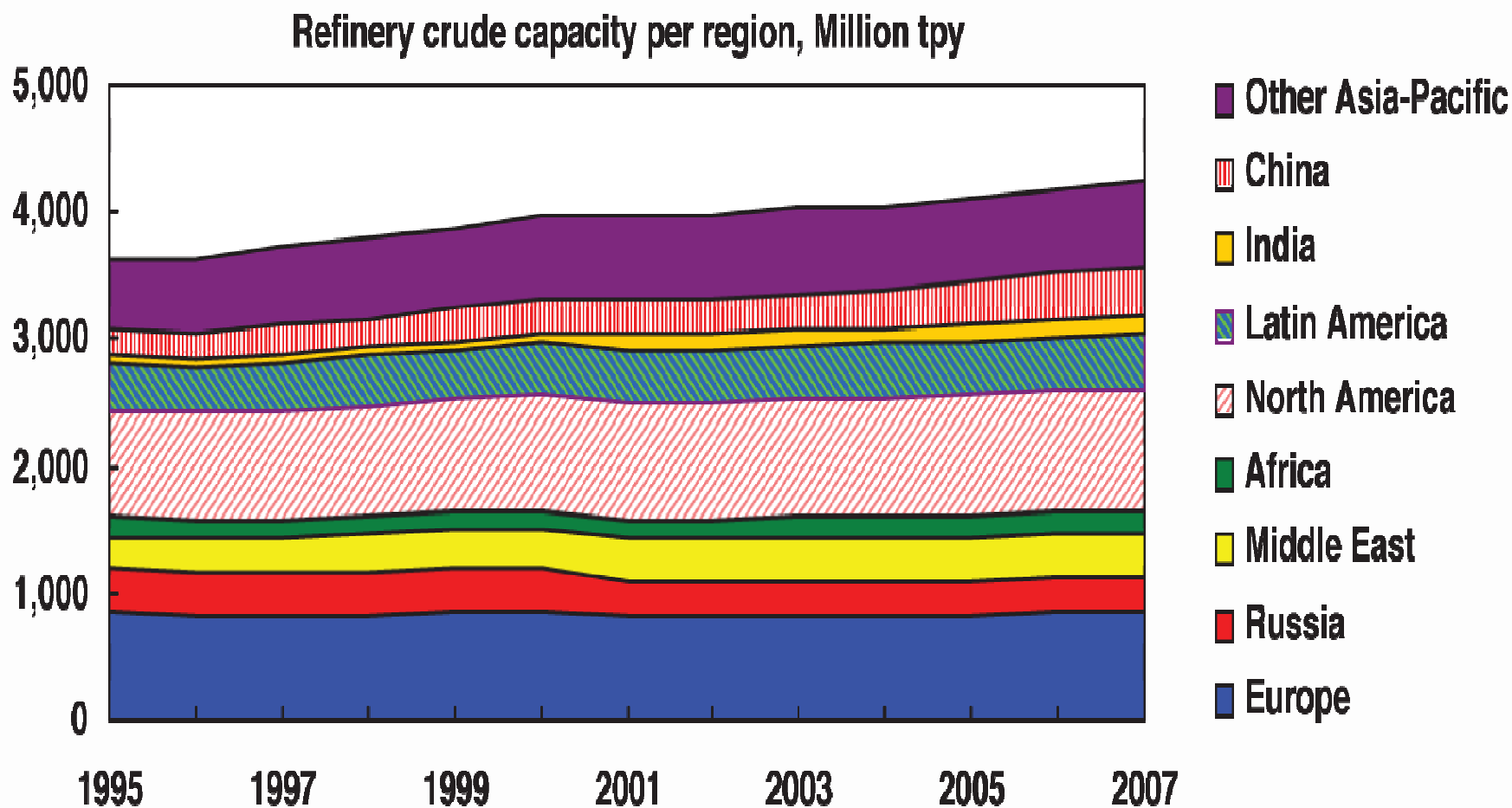
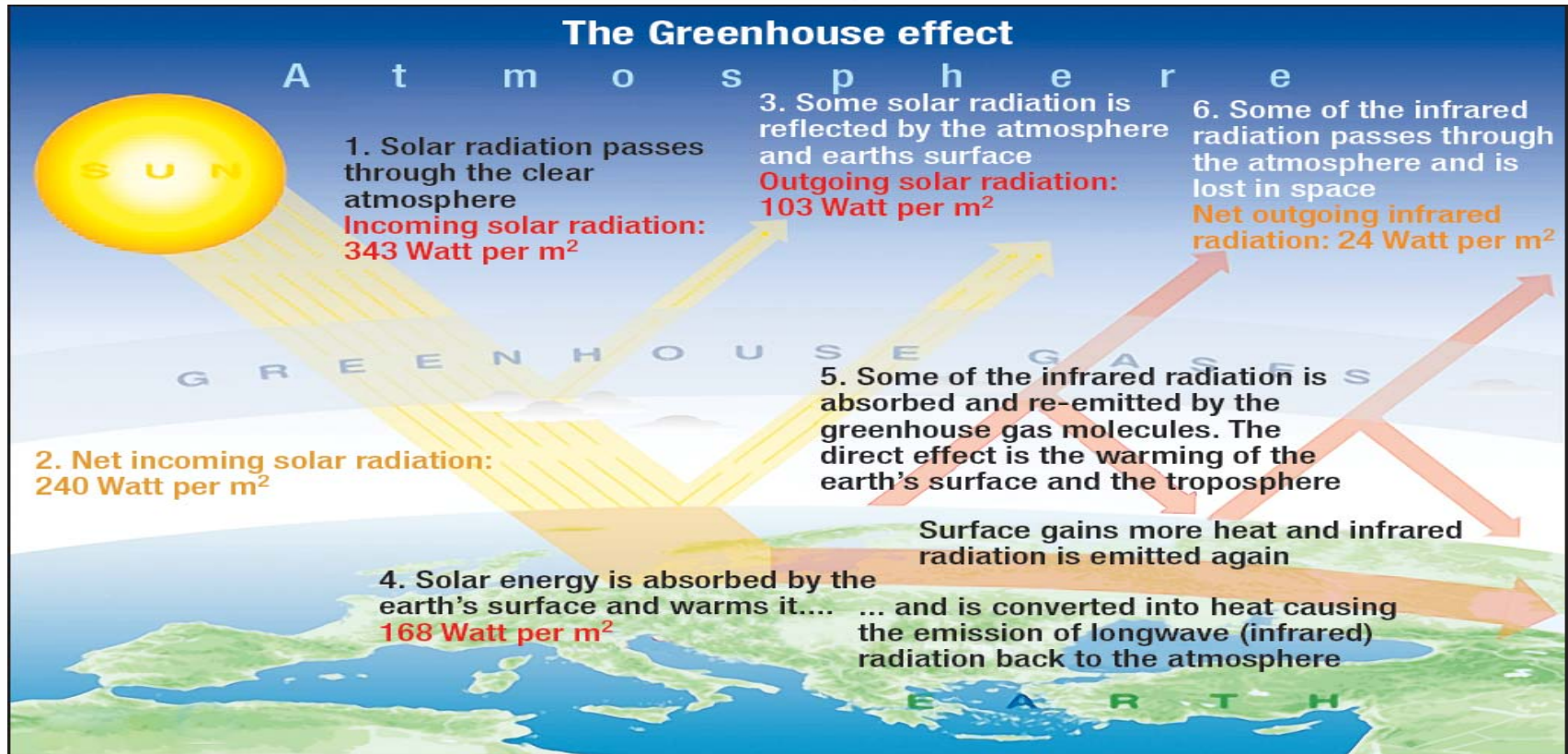


Refinery Crude Capacity Per Region



Source: Refining Capacity Study Purvin & Gertz

Interaction of GHGs With the Earth's Atmosphere

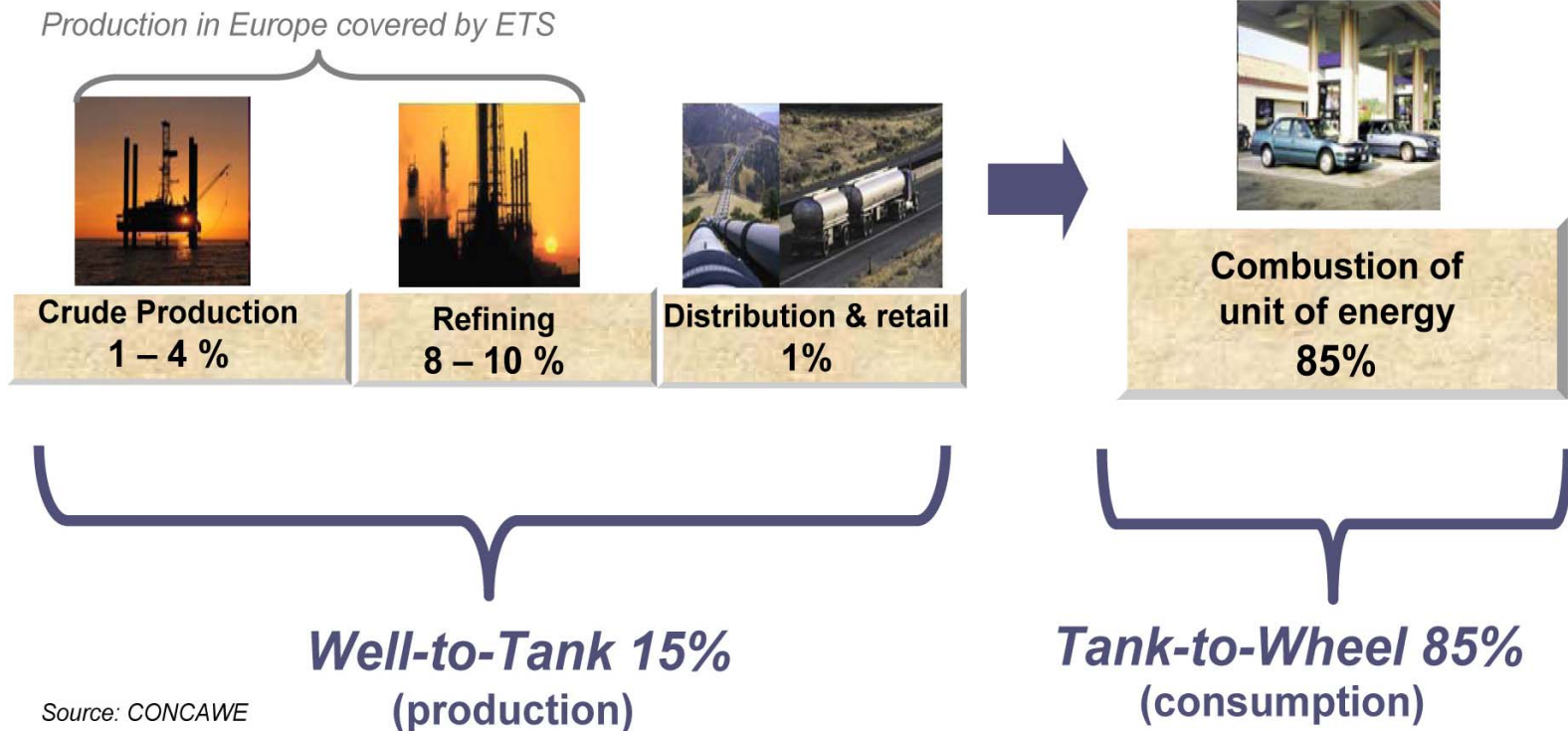


- **Kyoto Protocol GHGs:**
 - Carbon dioxide (CO₂)
 - Methane (CH₄)
 - Nitrous oxide (N₂O)
 - Hydrofluorocarbons (HFCs)
 - Perfluorocarbons (PFCs)
 - Sulfur hexafluoride (SF₆)

- **Contributes to global warming by absorbing and reemitting solar radiative heat**

Greenhouse Gas (GHG) emissions from transport fuels: the Well-to-Wheel concept

FOSSIL FUELS



Biofuels

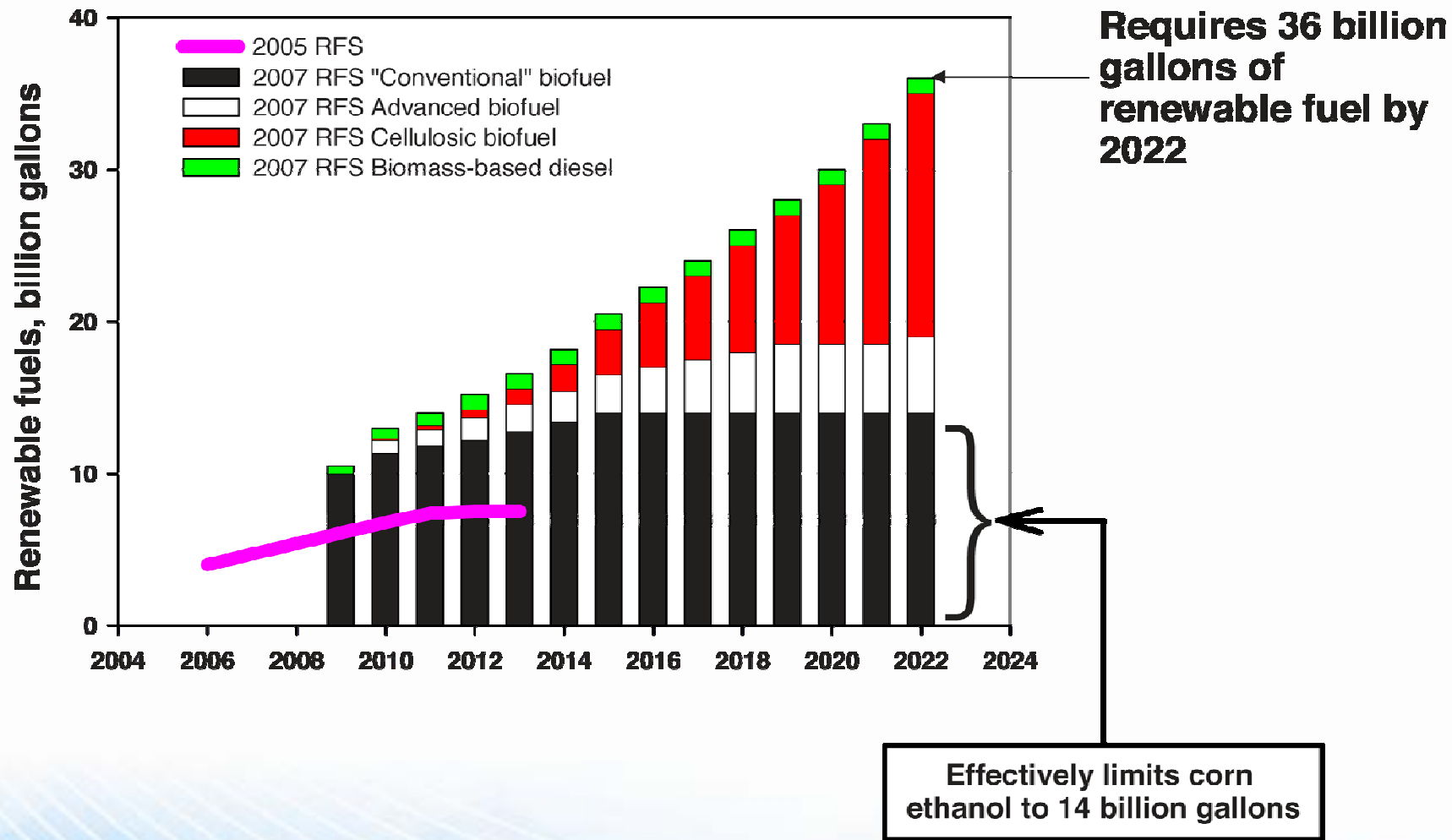


**HYDROCARBON
PROCESSING[®]**

EU Energy and Climate Change Policy 2007 Targets:

- 20% Reduction of GHG
- 20% Renewables share in Energy mix – 10% Biofuels
- 20% Energy Efficiency Improvements

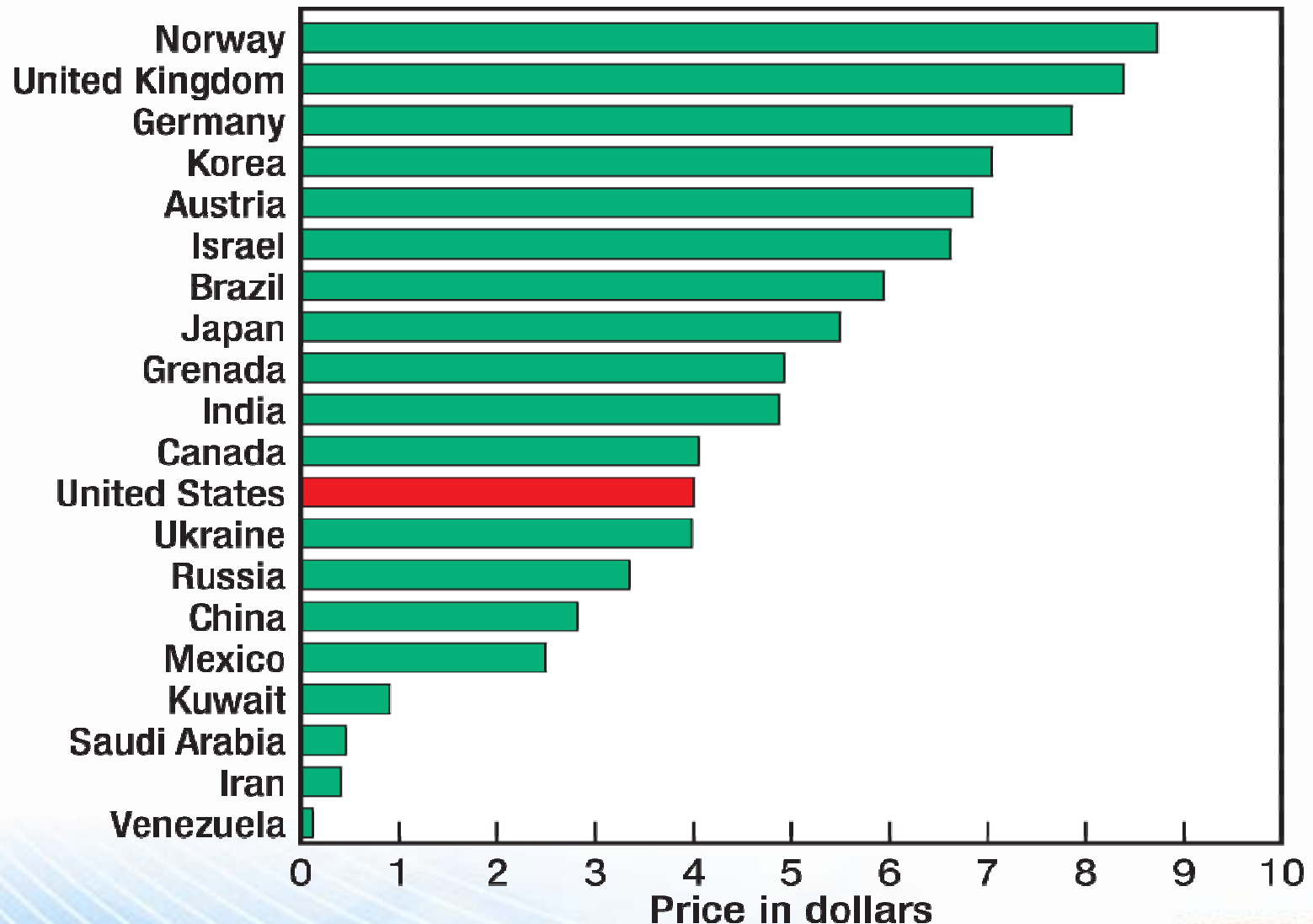
2007 EISA Renewable Fuel Standard



Source: National Renewable Energy Laboratory

**HYDROCARBON
PROCESSING[®]**

Worldwide Fuel Prices



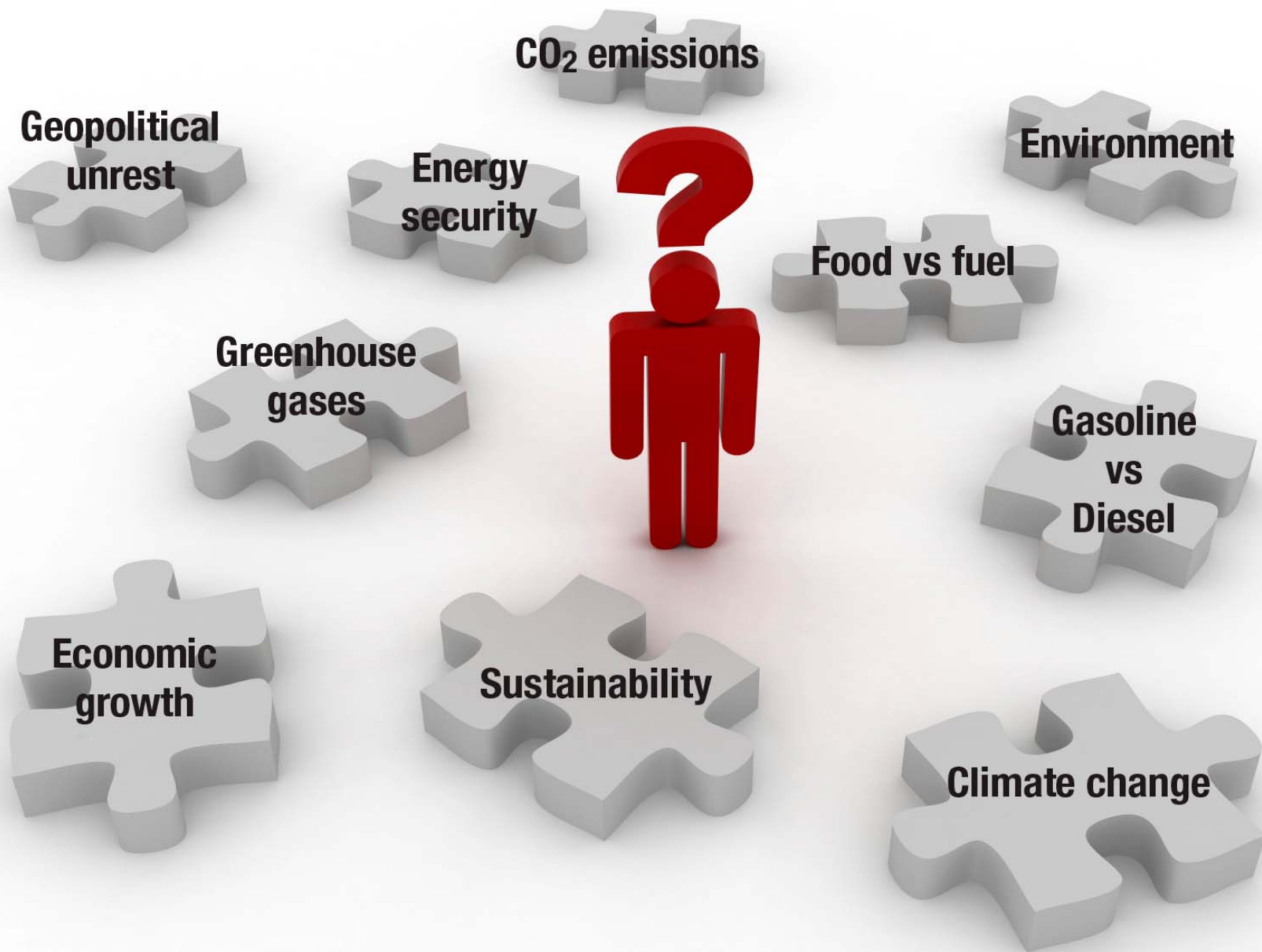
Source: *Houston Chronicle* and Associates for International Research

**HYDROCARBON
PROCESSING***

U.S. Petroleum-Based* Gasoline and Distillate Fuel Needs Shift

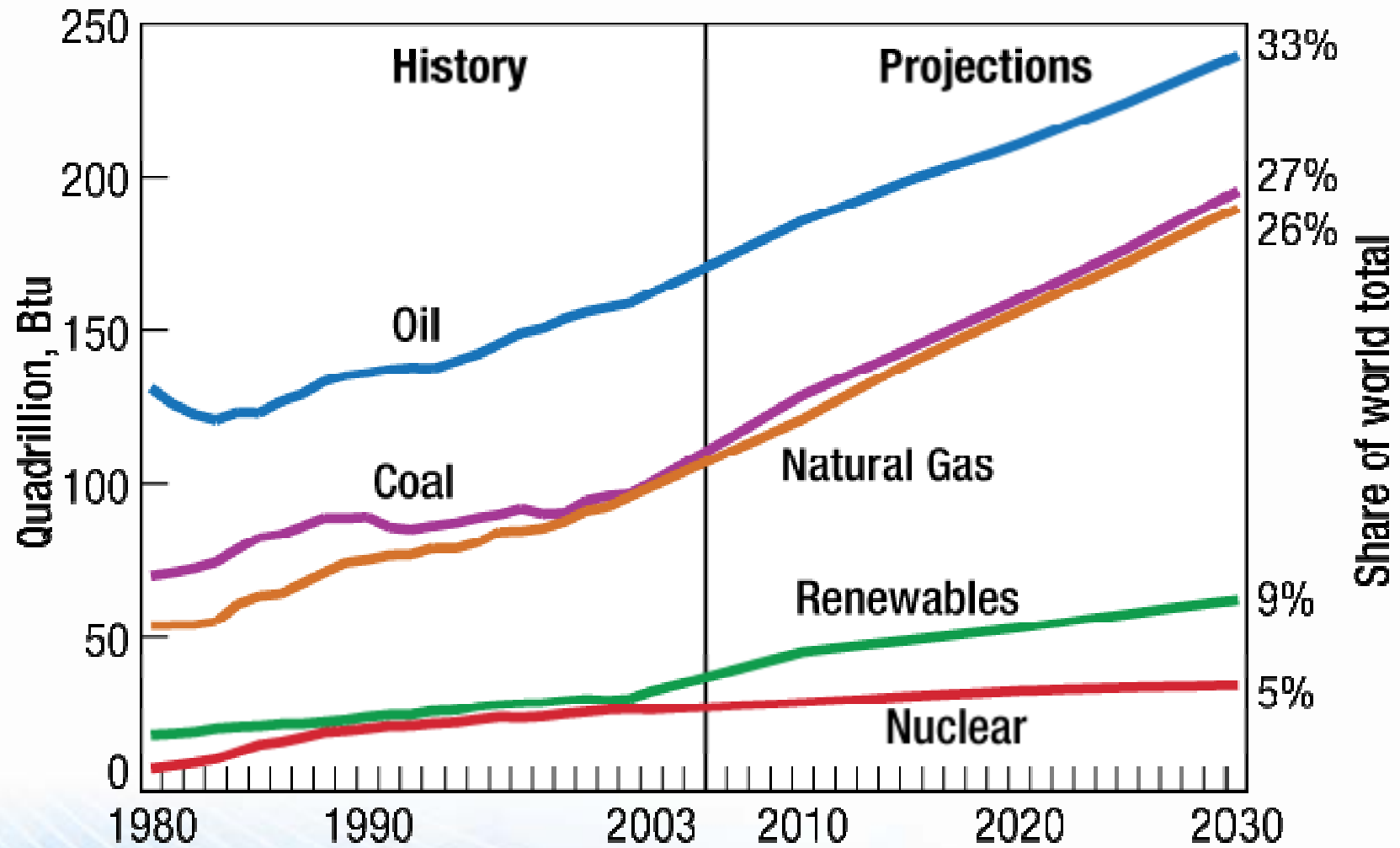
Million Barrels Per Day	2007	2022	Growth to 2022
Petroleum Gasoline	8.85	8.24	-0.61
Petroleum Distillate	4.22	4.71	+0.49

* Petroleum-Based excludes ethanol, biodiesel, and distillate from coal-to-liquids and biomass-to-liquids.
Source: AEO 2008 Reference Case



World Marketed Energy Use by Fuel Type

1980-2030

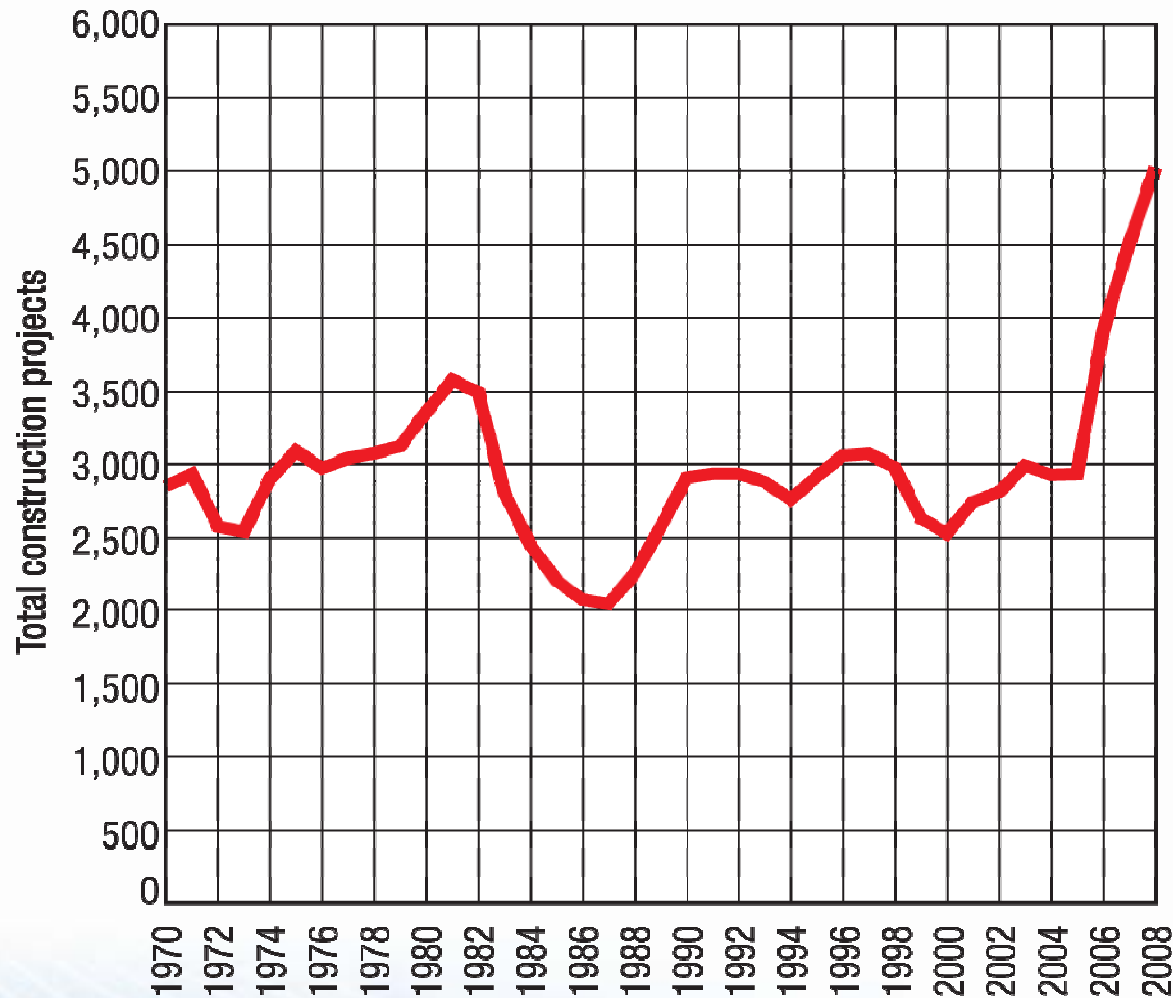


Source: EIA

**HYDROCARBON
PROCESSING***

HPI Construction Activity

1970 to 2008

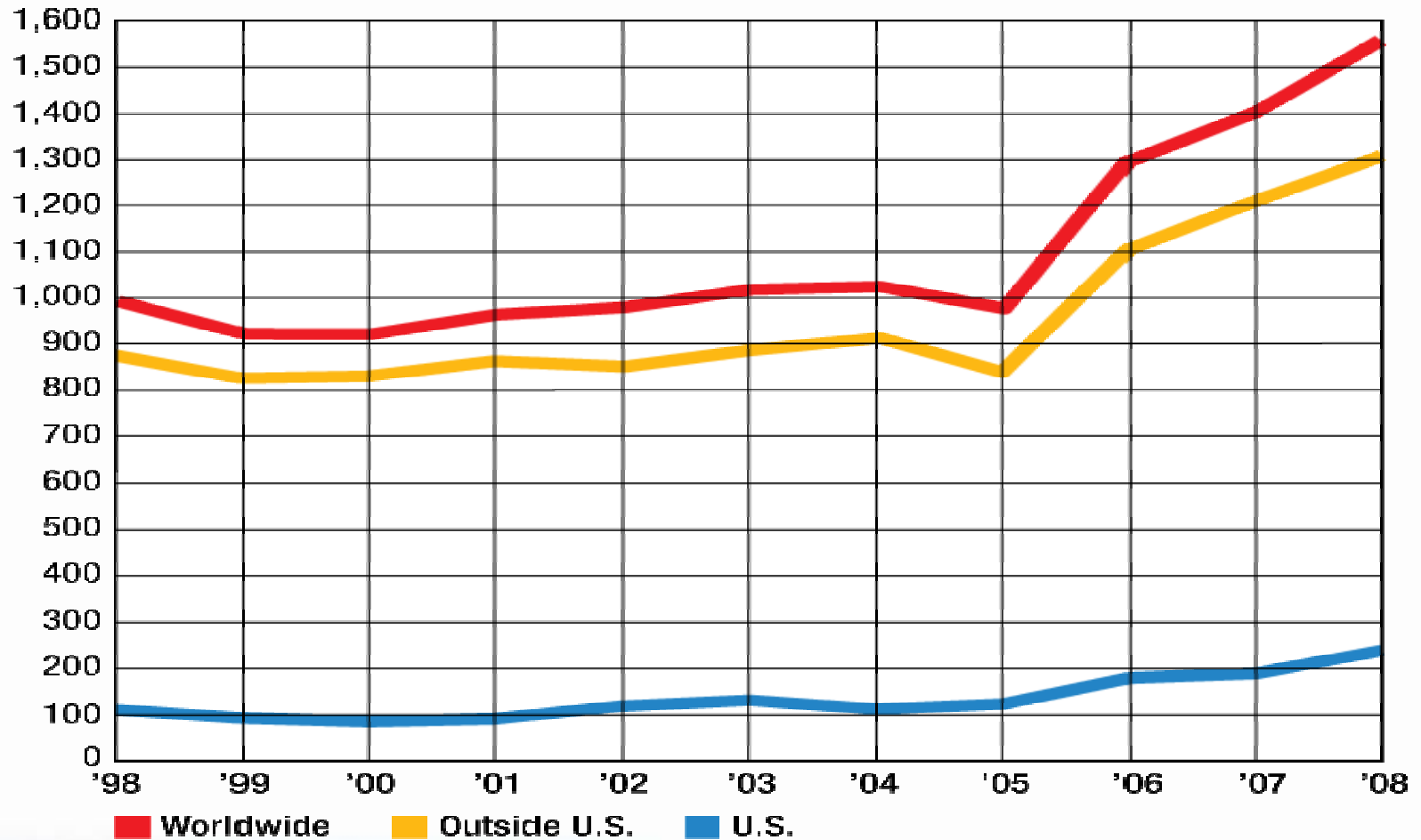


Source: HPI Construction Boxscore

**HYDROCARBON
PROCESSING[®]**

Refining Construction

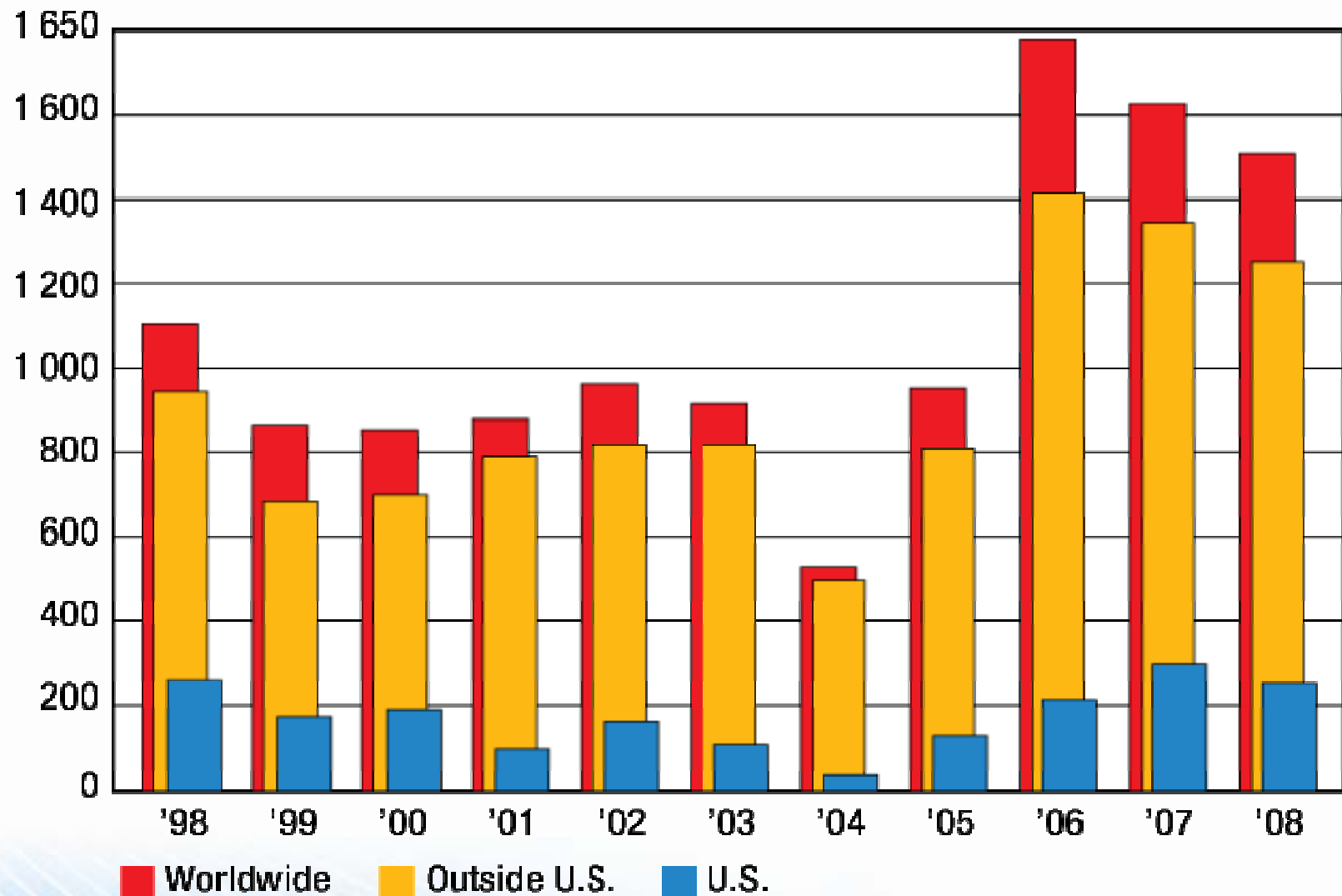
1998 to 2008



Source: HPI Construction Boxscore

New Project Additions

1998 to 2008

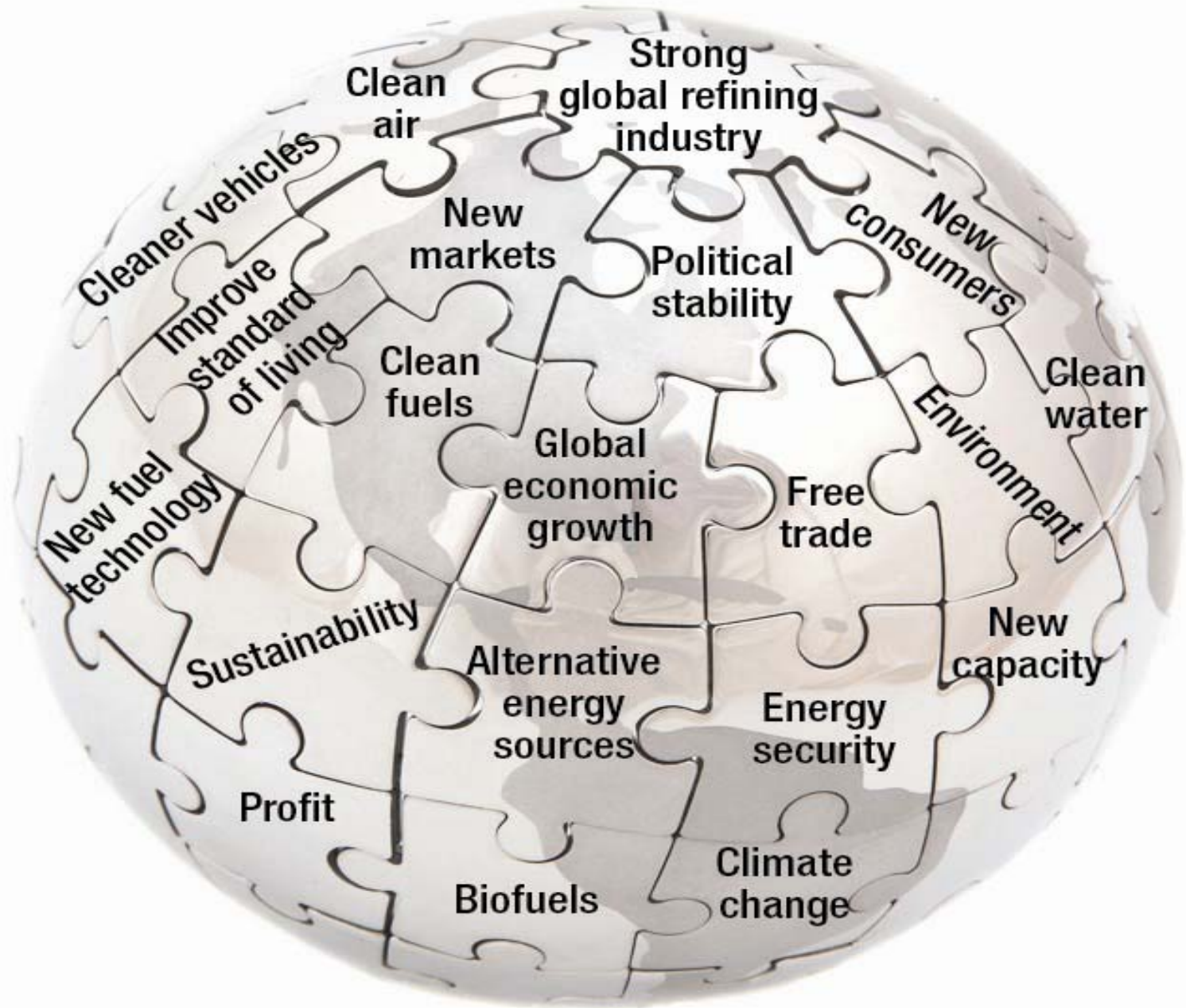


Source: HPI Construction Boxscore

**HYDROCARBON
PROCESSING***

HPI Forecast Spending for 2009

Type	U.S.	O.U.S.	Worldwide
Capital	\$10,700,000,000	\$47,600,000,000	\$58,300,000,000
Maintenance	14,400,000,000	44,700,000,000	59,100,000,000
Operating	32,120,000,000	72,870,000,000	104,990,000,000
Totals	\$57,220,000,000	\$165,170,000,000	\$222,390,000,000



2009 Energy Outlook

- Refining
- Gas Processing
- LNG
- Synfuels
- Biofuels
- Petrochemical/Chemical
- Engineering/Procurement/
Construction

