

ExxonMobil

Taking on the world's toughest energy challenges.™

the outlook for energy: a view to 2030



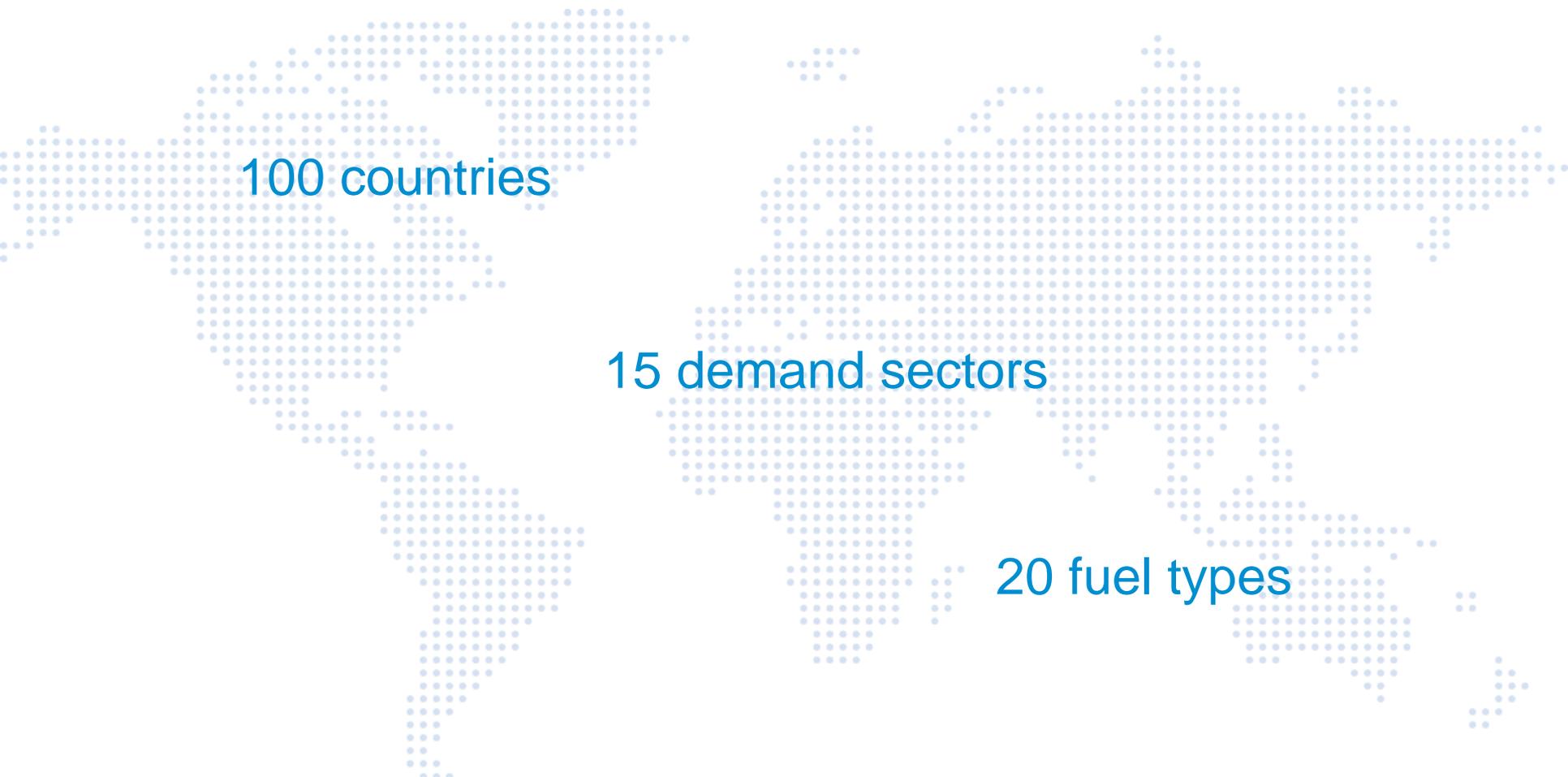
David Reed

Lawrence Berkeley National Laboratory Seminar

March 20, 2009

This presentation includes forward-looking statements. Actual future conditions (including economic conditions, energy demand, and energy supply) could differ materially due to changes in technology, the development of new supply sources, political events, demographic changes, and other factors discussed herein (and in Item 1 of ExxonMobil's latest report on Form 10-K). This material is not to be reproduced without the permission of Exxon Mobil Corporation.

the outlook for energy



100 countries

15 demand sectors

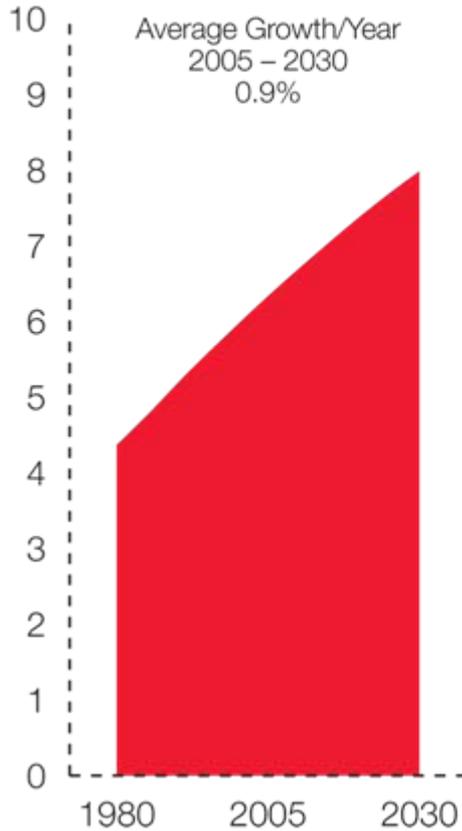
20 fuel types

global economics and energy



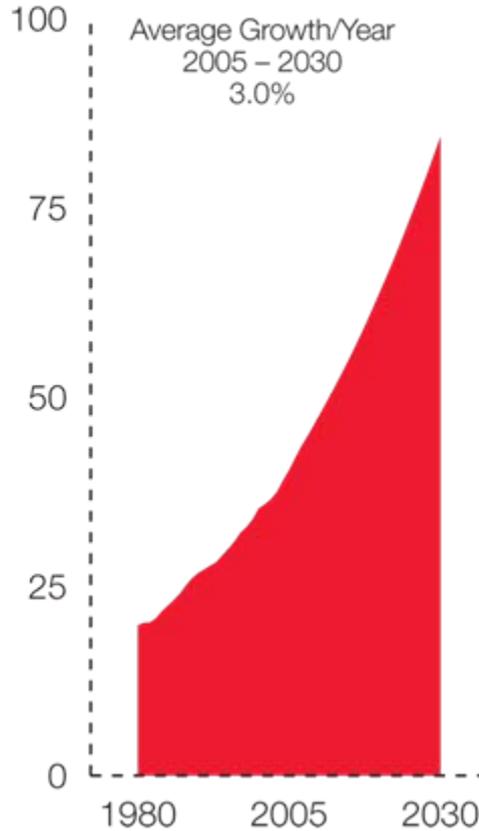
population

billion



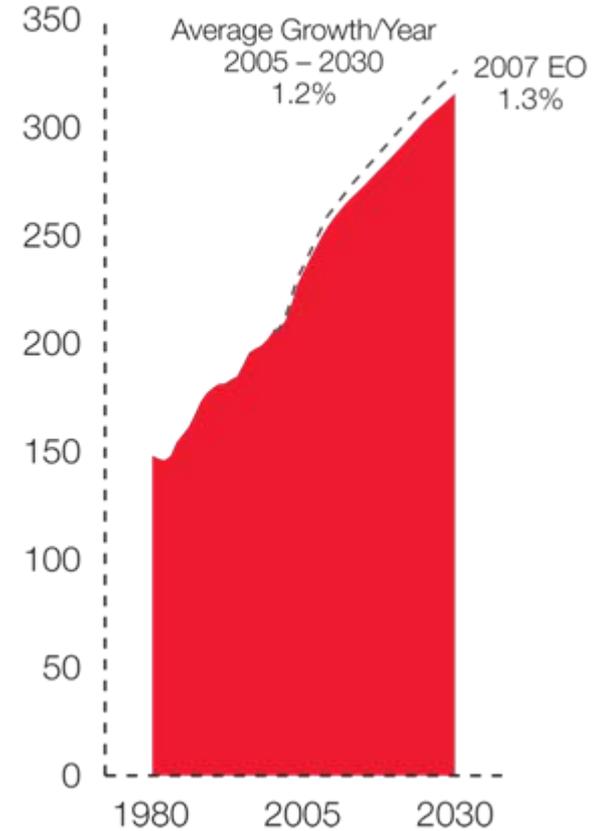
GDP

trillion 2005\$



energy demand

MBDOE



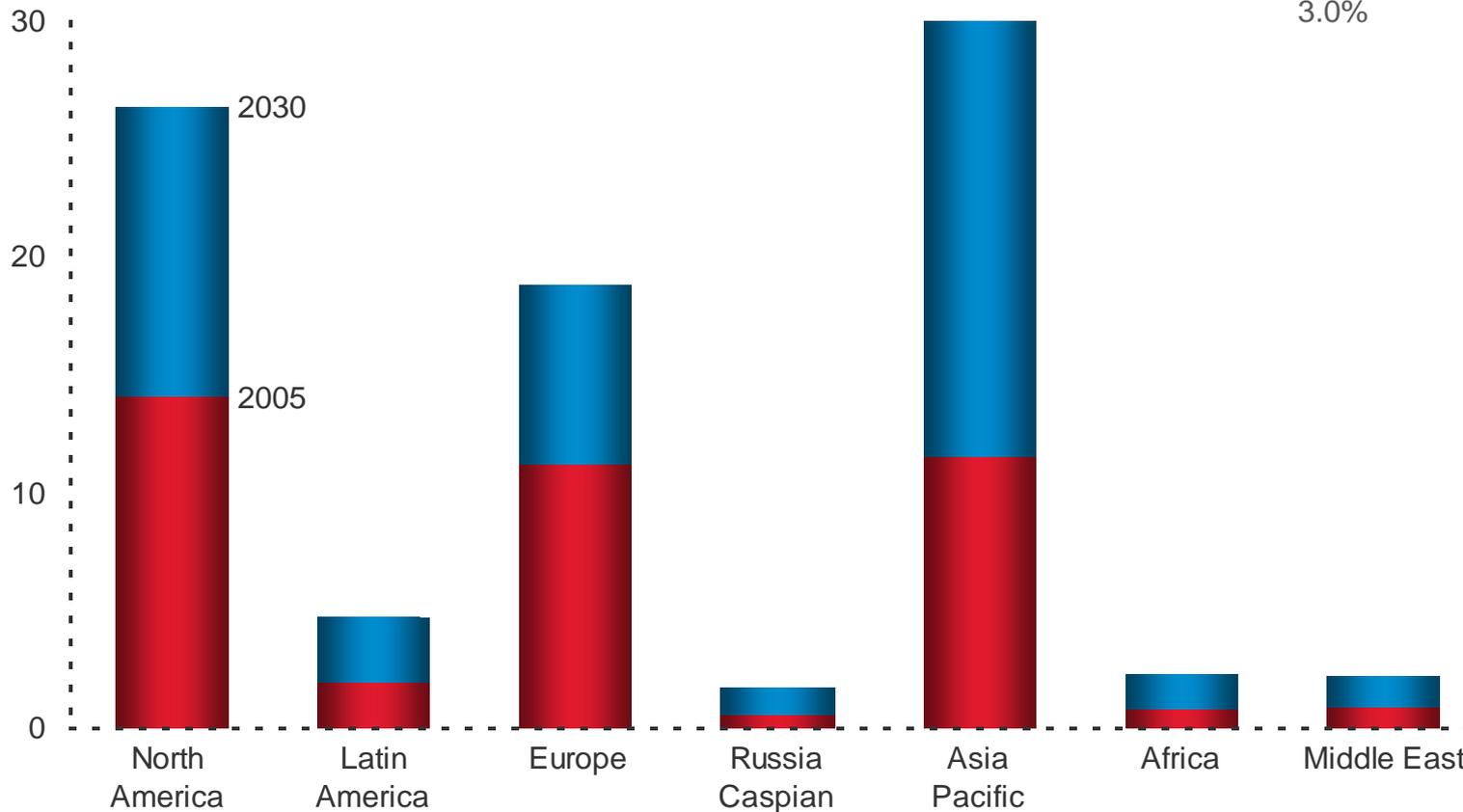
GDP by region



GDP

Trillion 2005\$

Average Growth / Yr.
2005 – 2030
3.0%

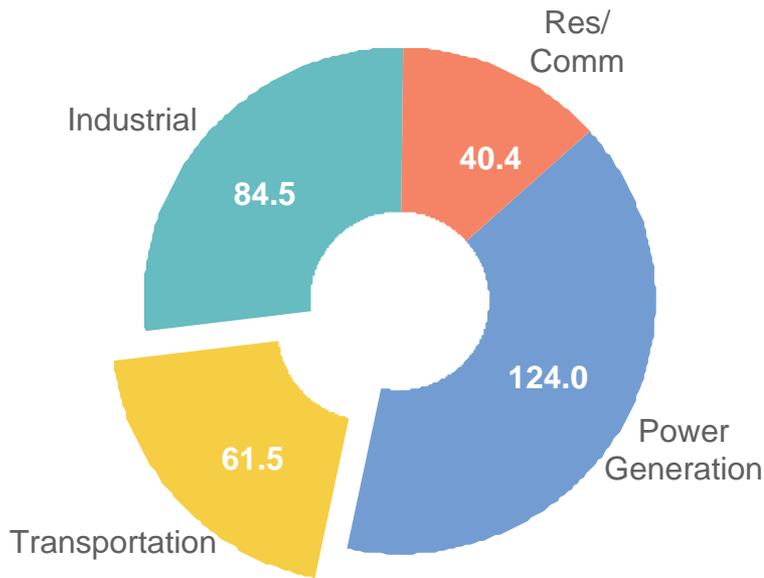


global – transportation



global transportation

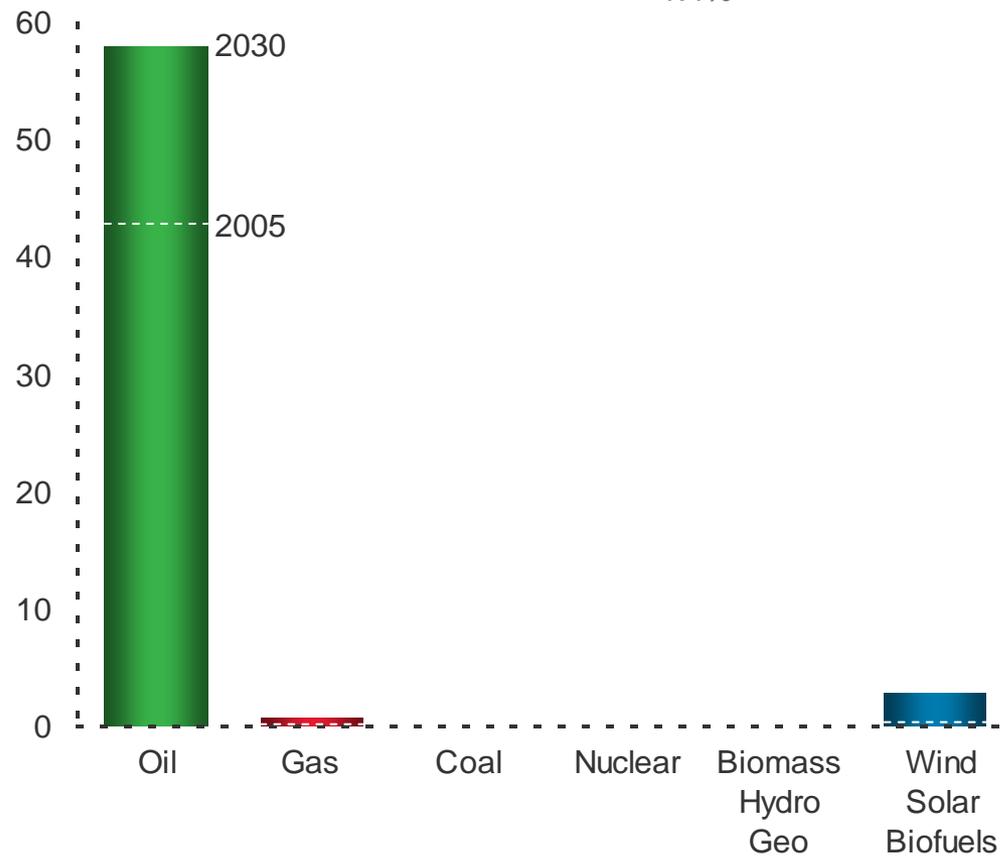
by sector
MBDOE



2030: ~310 MBDOE

global transportation

by fuel
MBDOE



global – transportation



global transportation

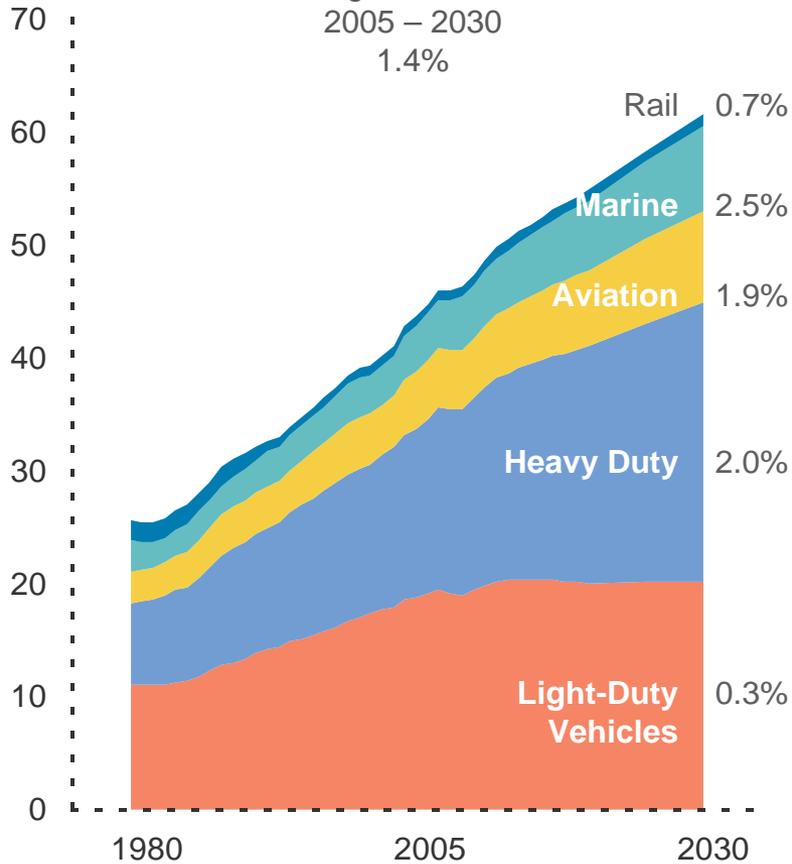
by sector

MBDOE

Average Growth / Yr.

2005 – 2030

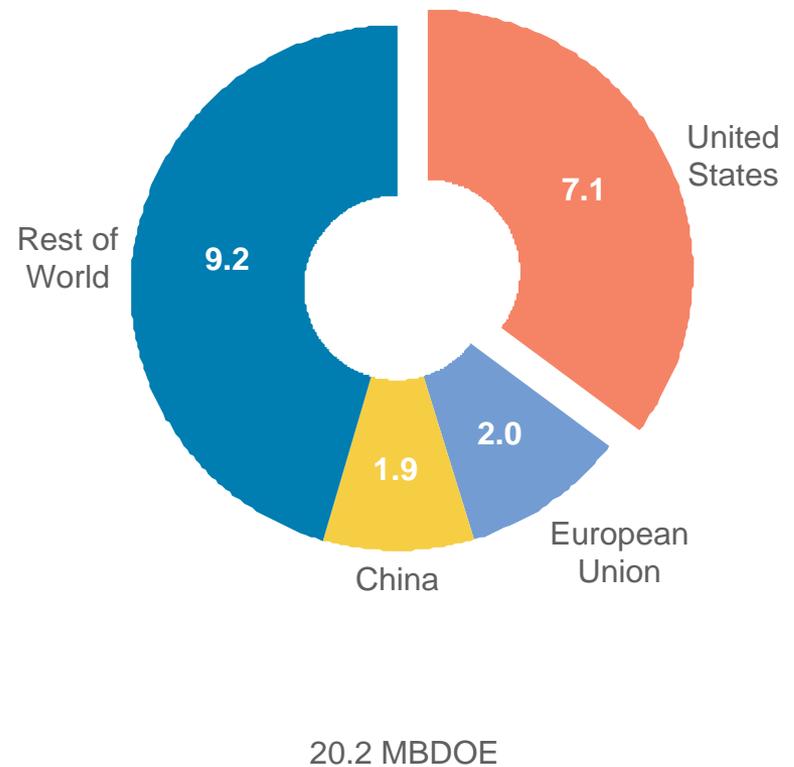
1.4%



2030 - LDV fuel demand

by region

MBDOE

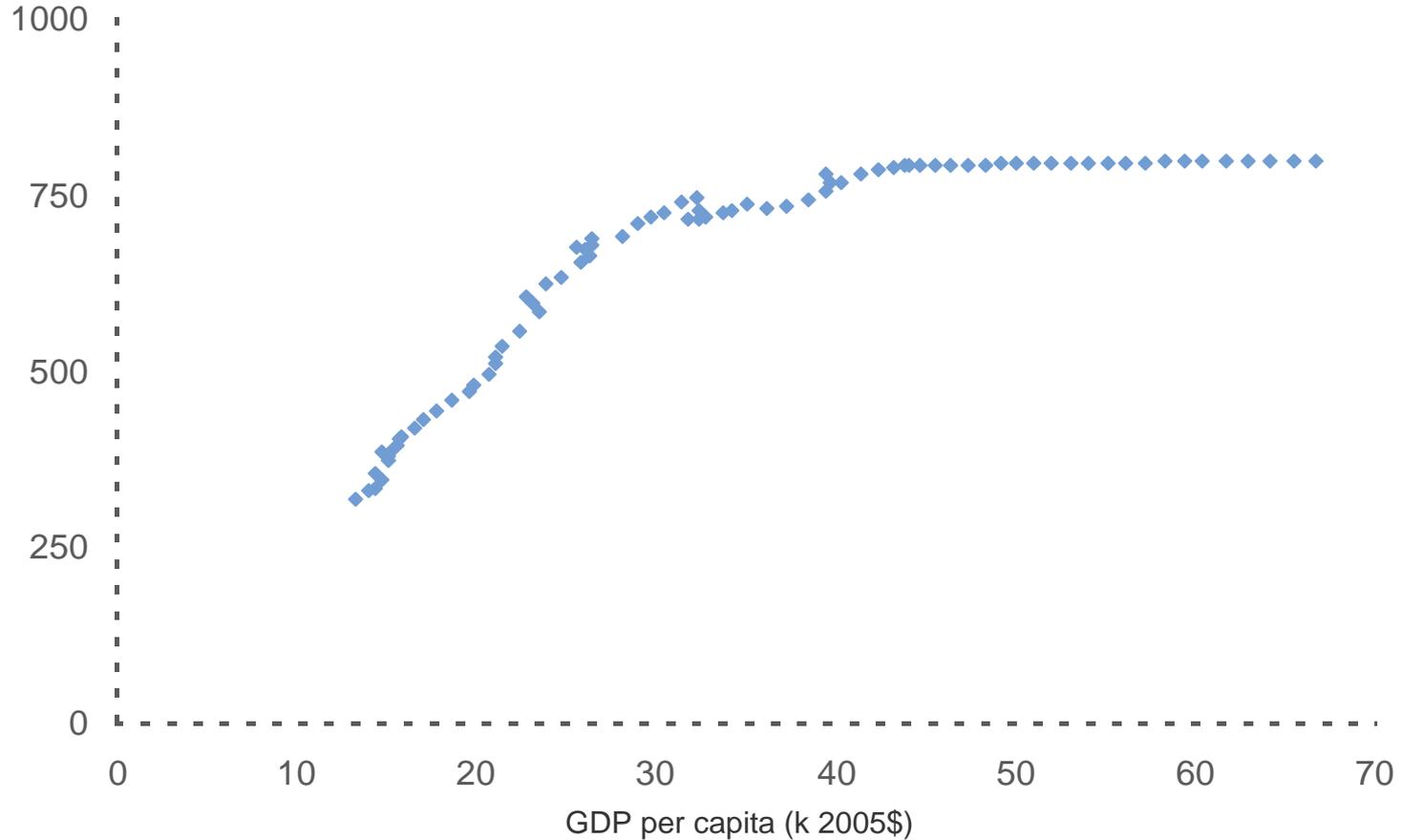


U.S. light-duty vehicle penetration



U.S. light-duty vehicle penetration

vehicles per 1000 people

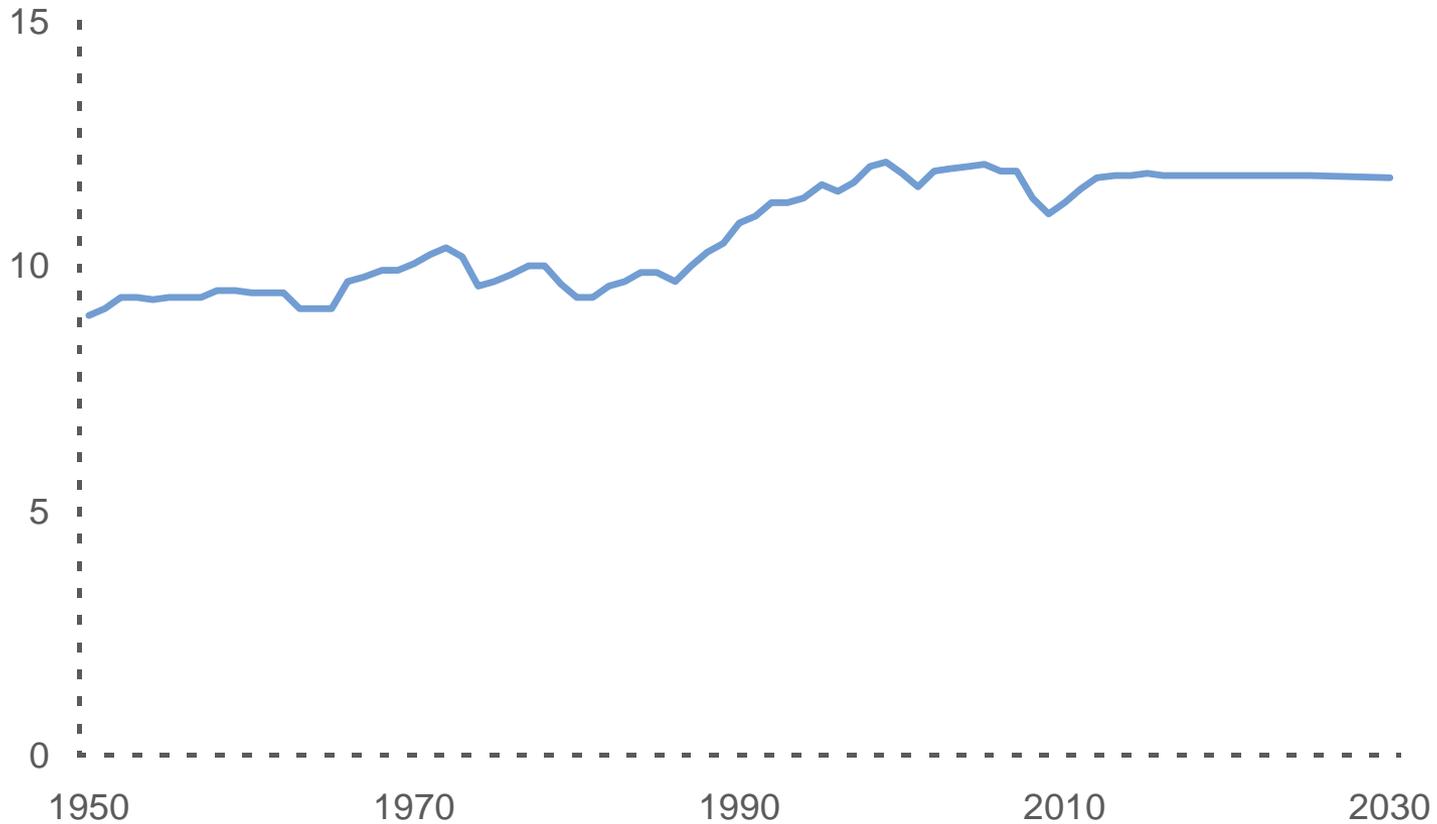


U.S. vehicle miles traveled



U.S. light-duty vehicle miles traveled

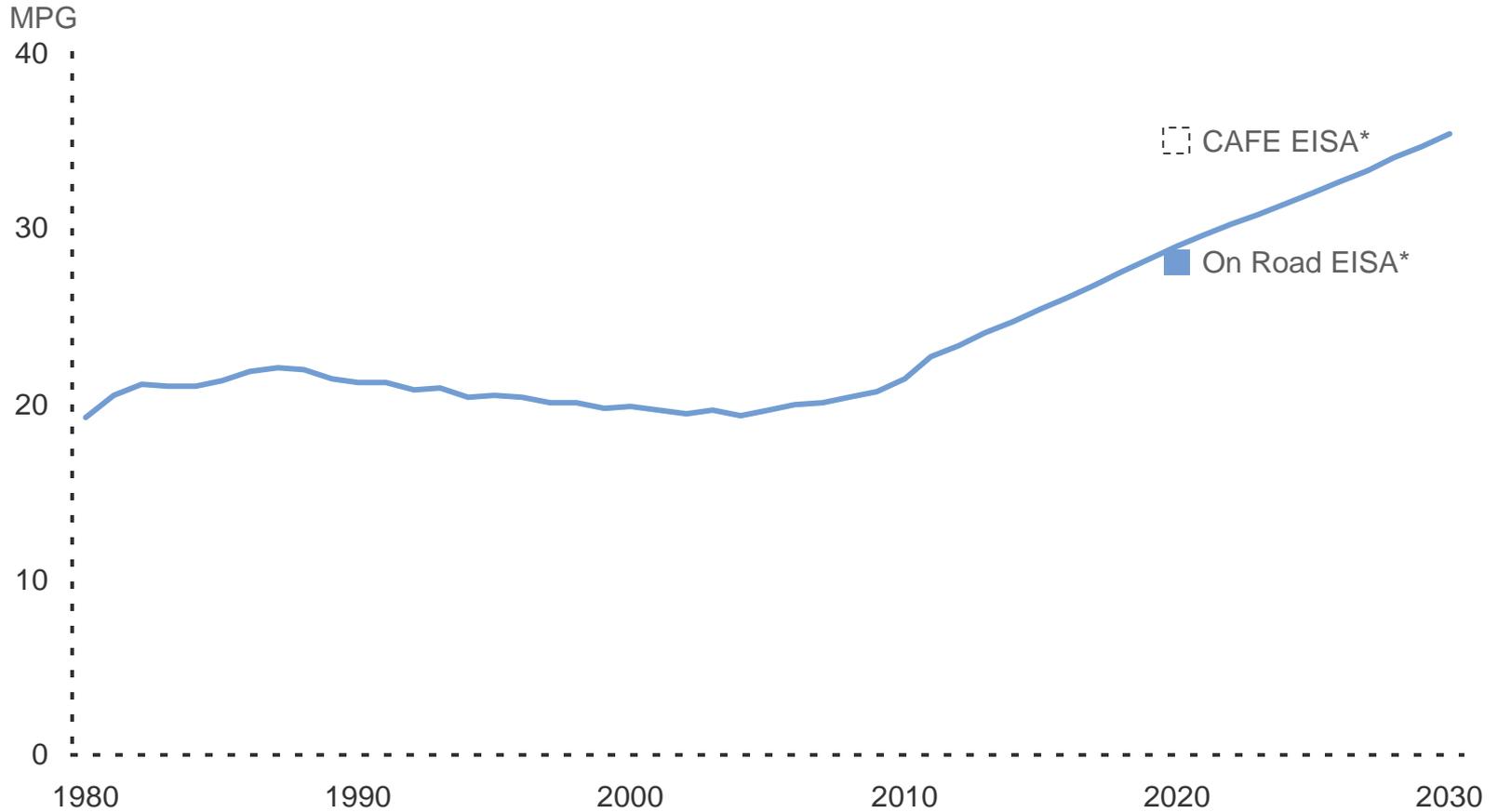
thousand miles per vehicle



U.S. new light-duty vehicles



U.S. new light-duty vehicle MPG



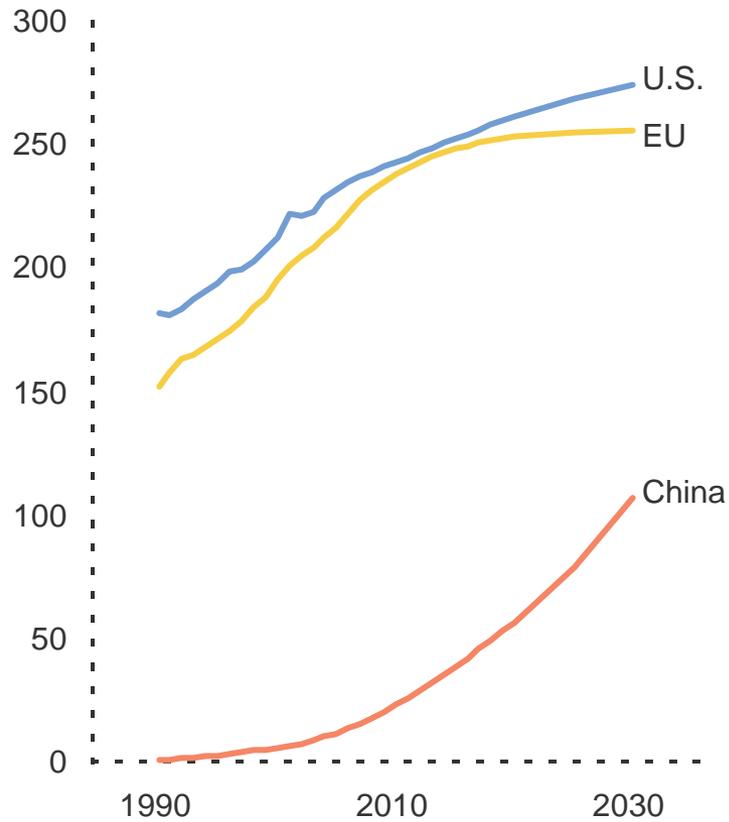
*EISA – Energy Independence and Security Act

light-duty vehicles



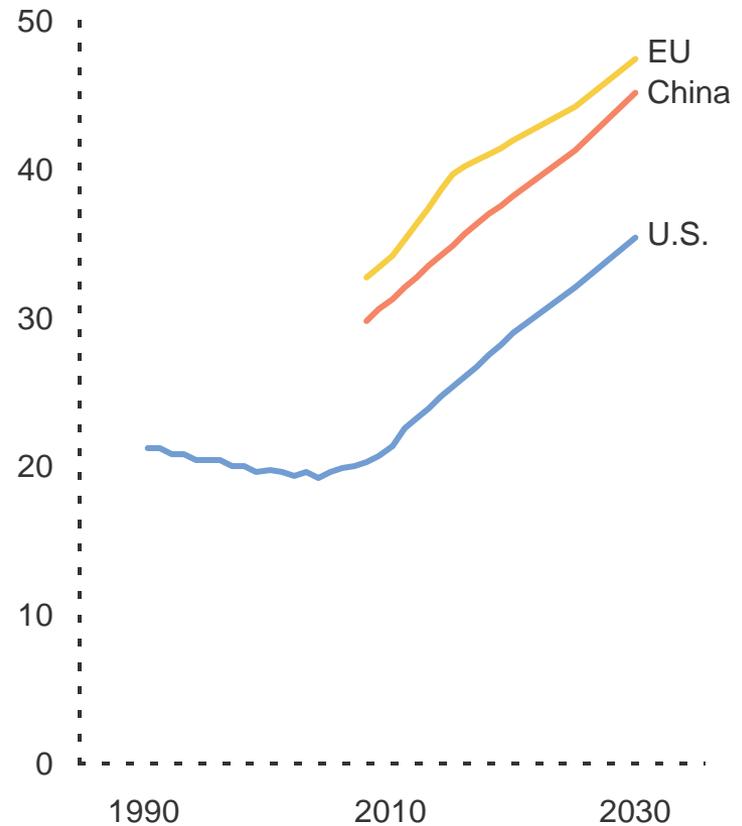
total fleet size

millions of vehicles

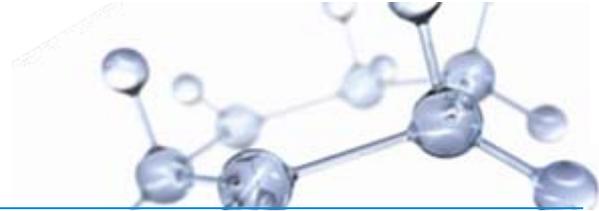


new vehicle mpg

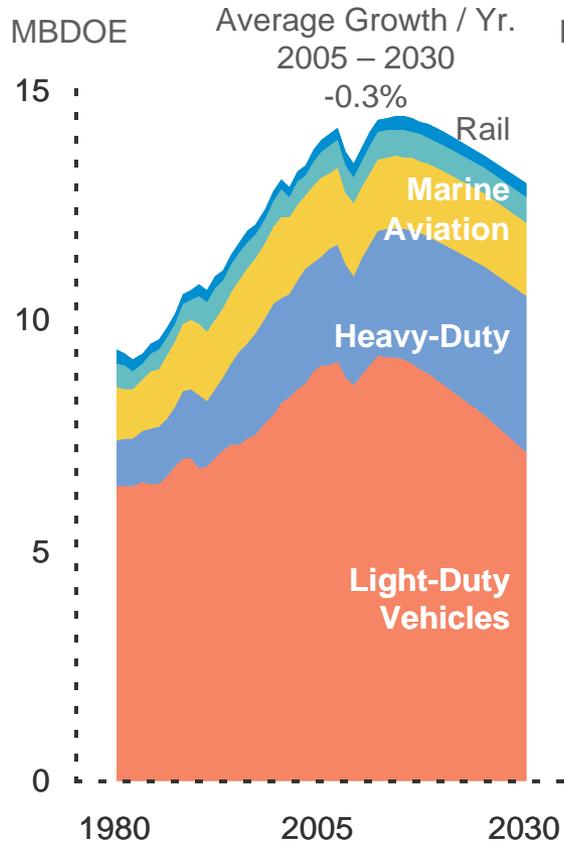
miles / gallon



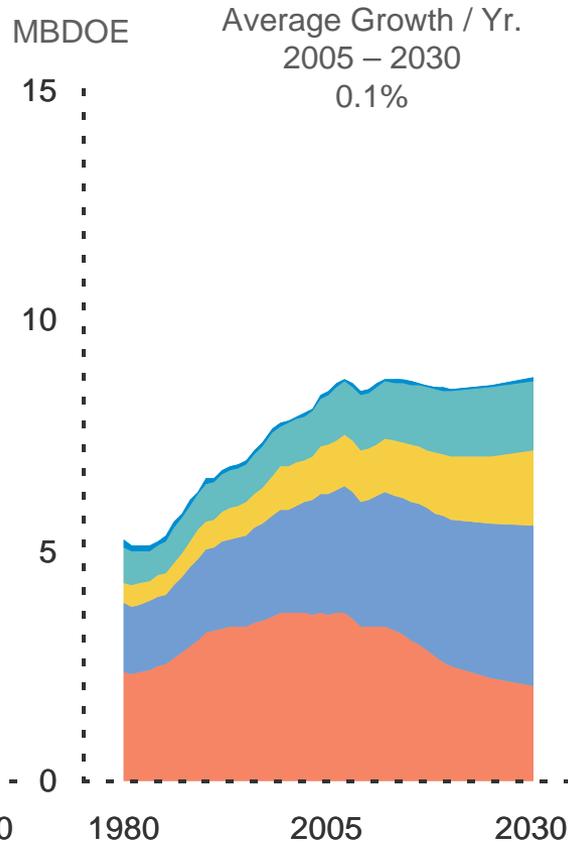
transportation by sector



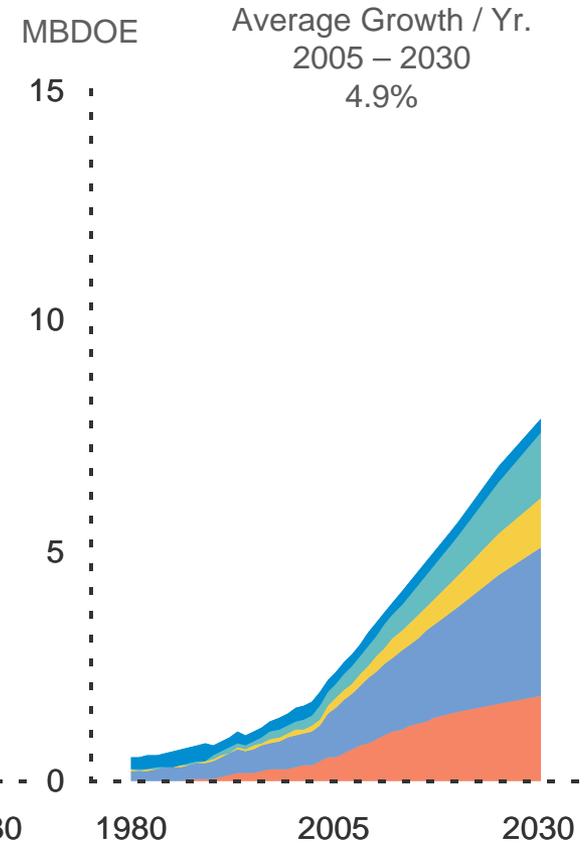
United States



European Union



China

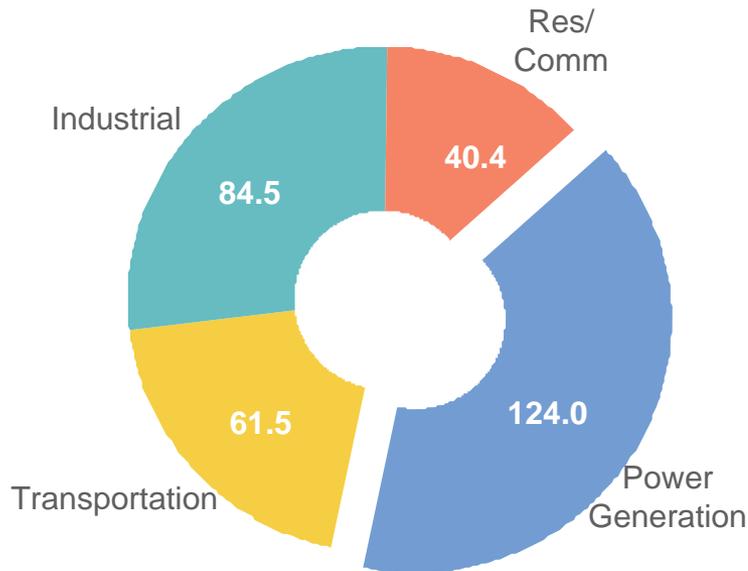


global – power generation



global power generation

by sector
MBDOE

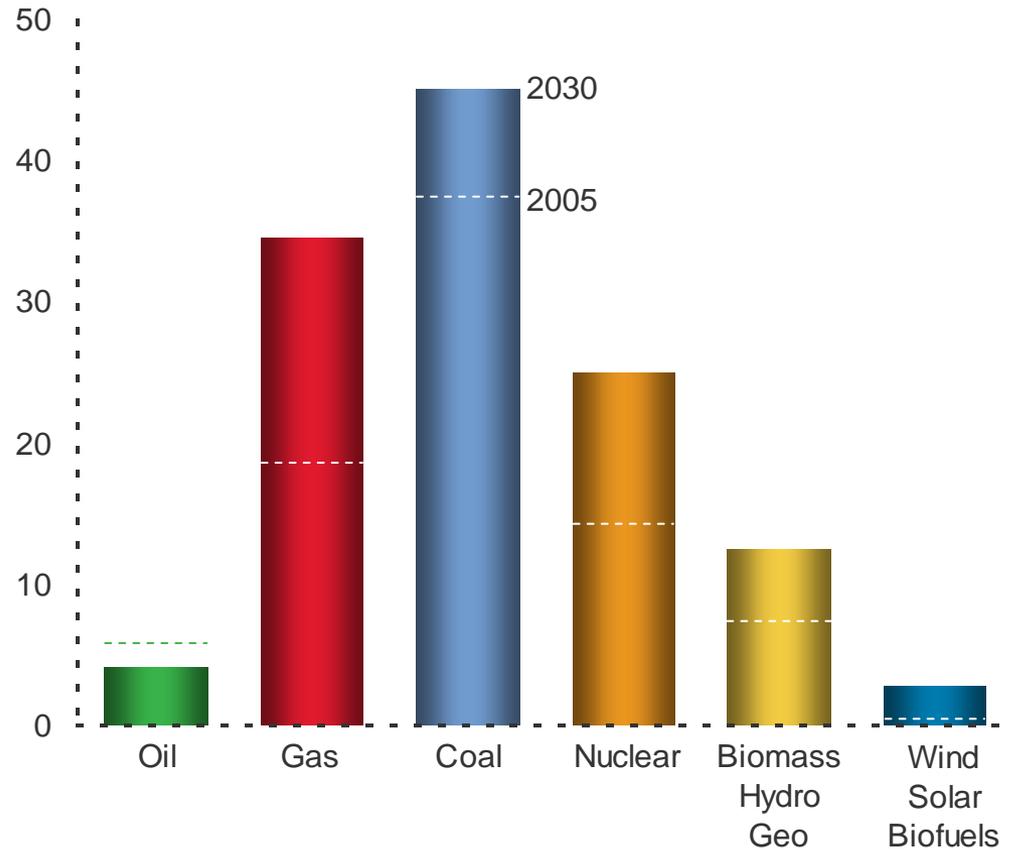


2030: ~310 MBDOE

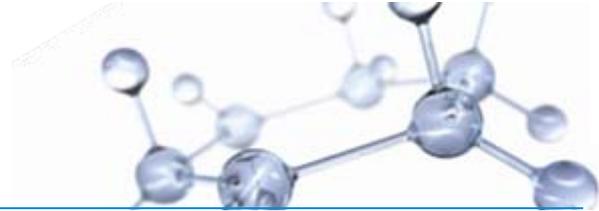
global power generation

by fuel
MBDOE

Average Growth / Yr.
2005 – 2030
1.6%



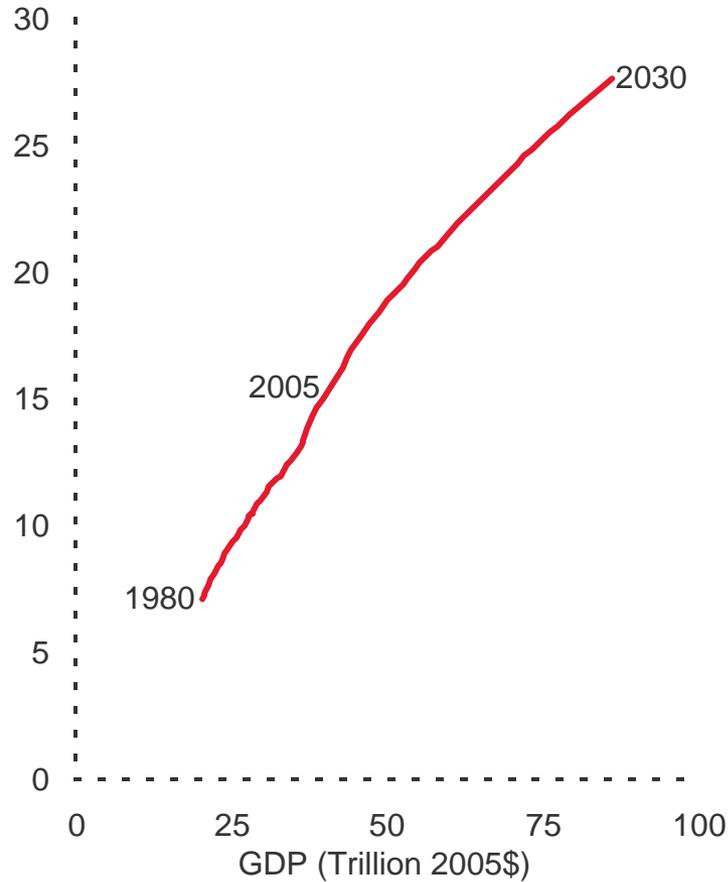
global power generation



global electricity use

electricity demand v. GDP

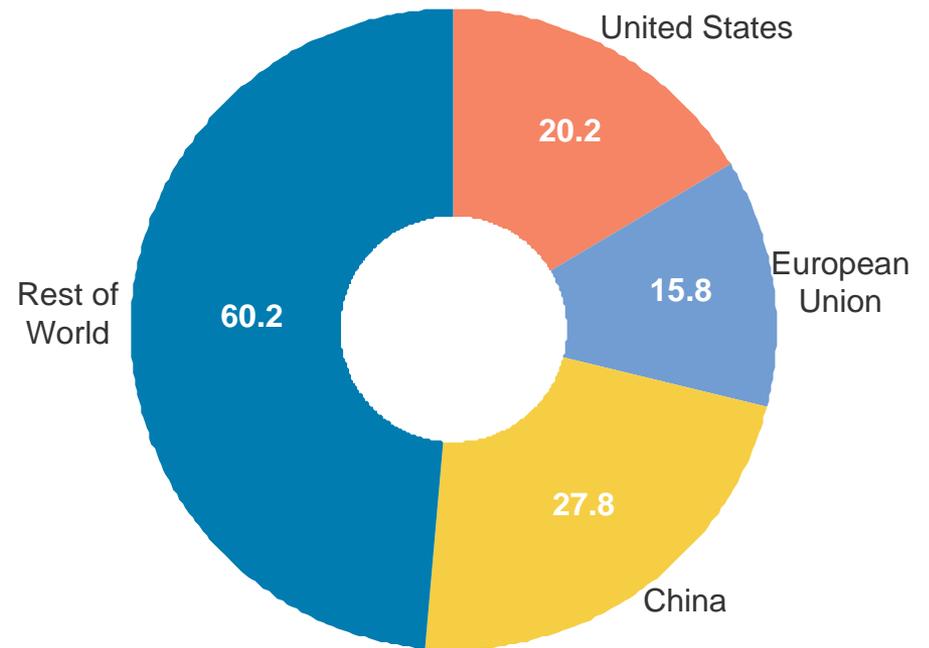
K Terawatt hours



global power generation fuel demand

by region

MBDOE



2030: ~124 MBDOE

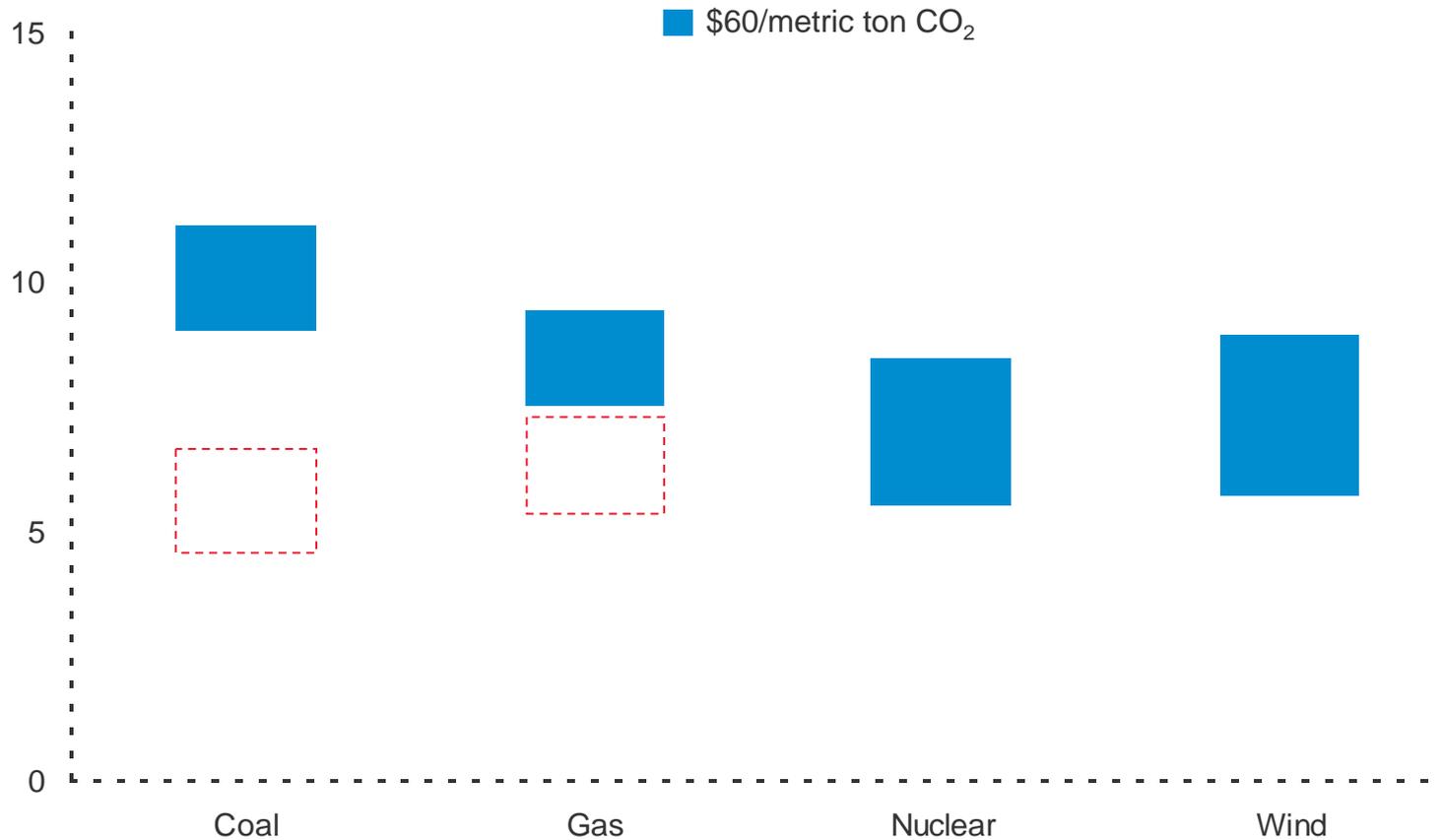
United States power generation cost



United States power generation cost

U.S. baseload, startup 2025

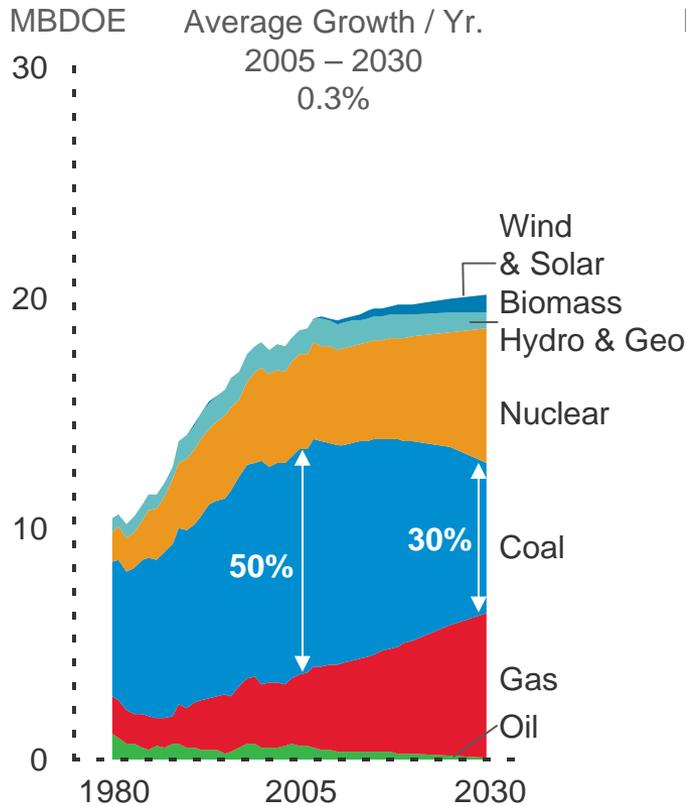
2005 cents/ kWhr



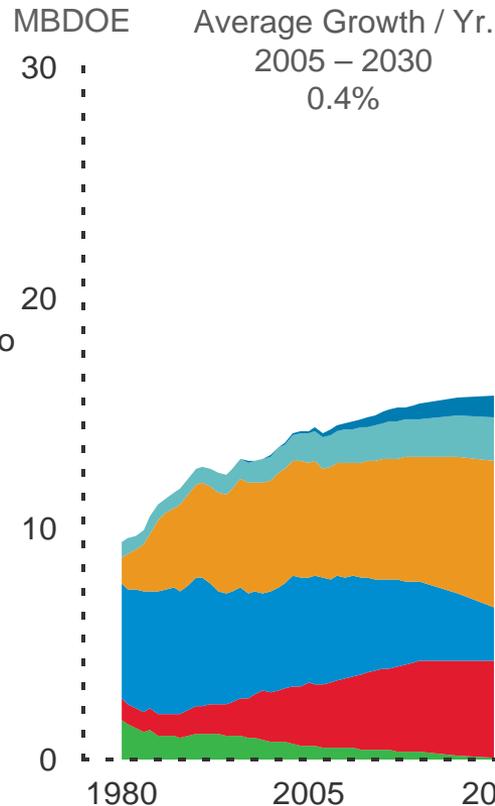
power generation by region



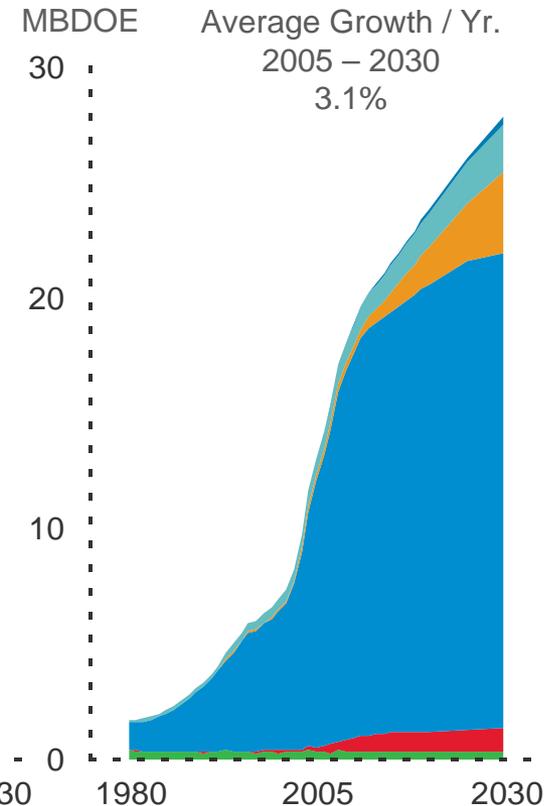
United States



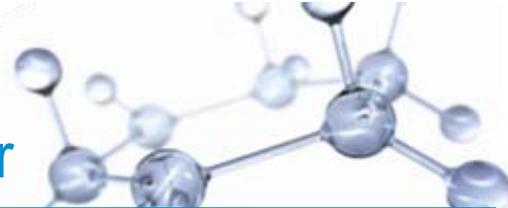
European Union



China



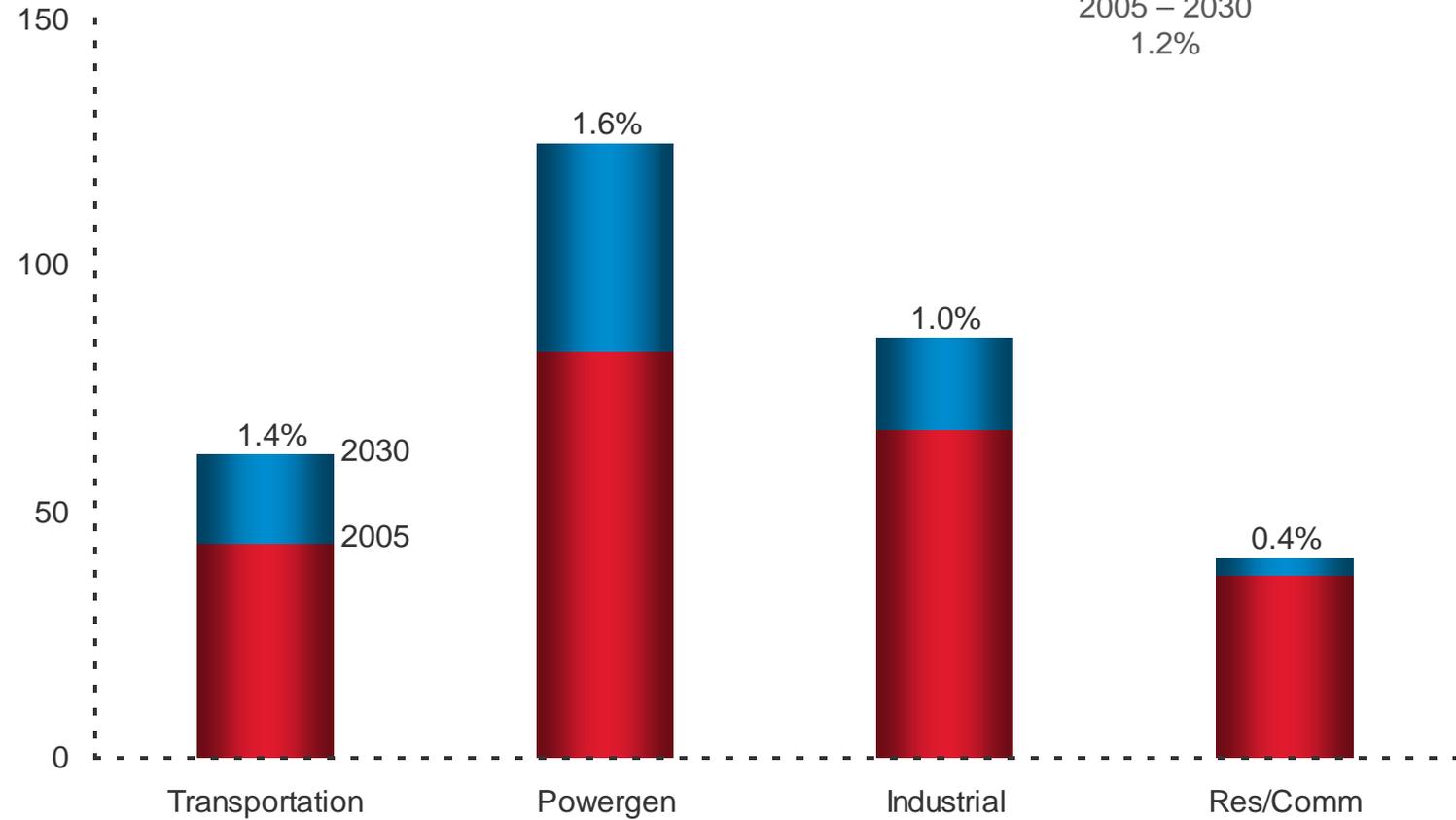
growing global energy demand by sector



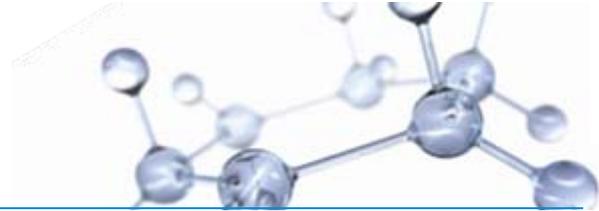
global energy demand

by sector

MBDOE



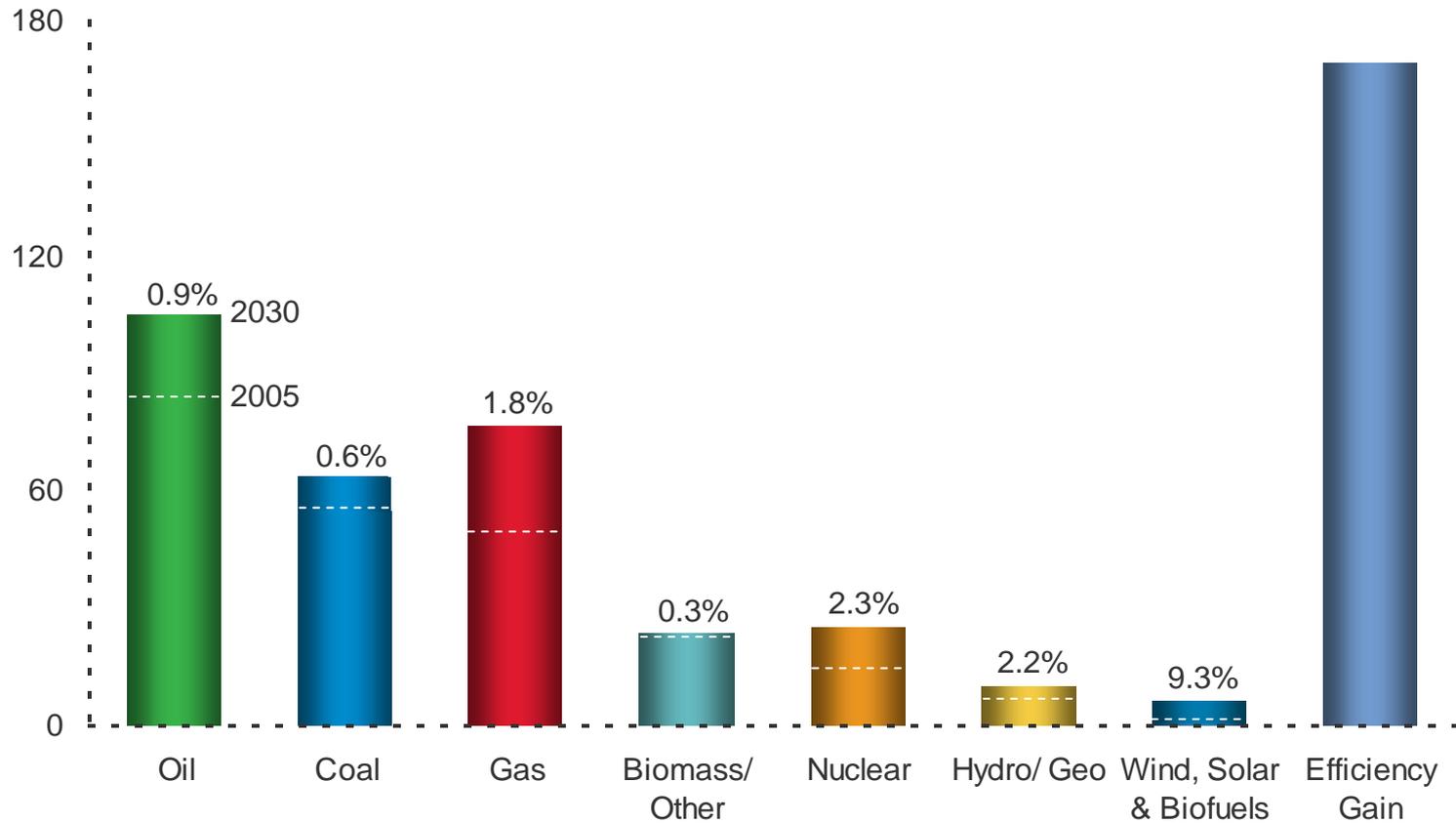
growing global energy demand



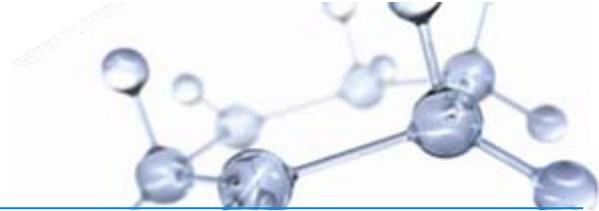
growing global energy demand

by fuel

MBDOE

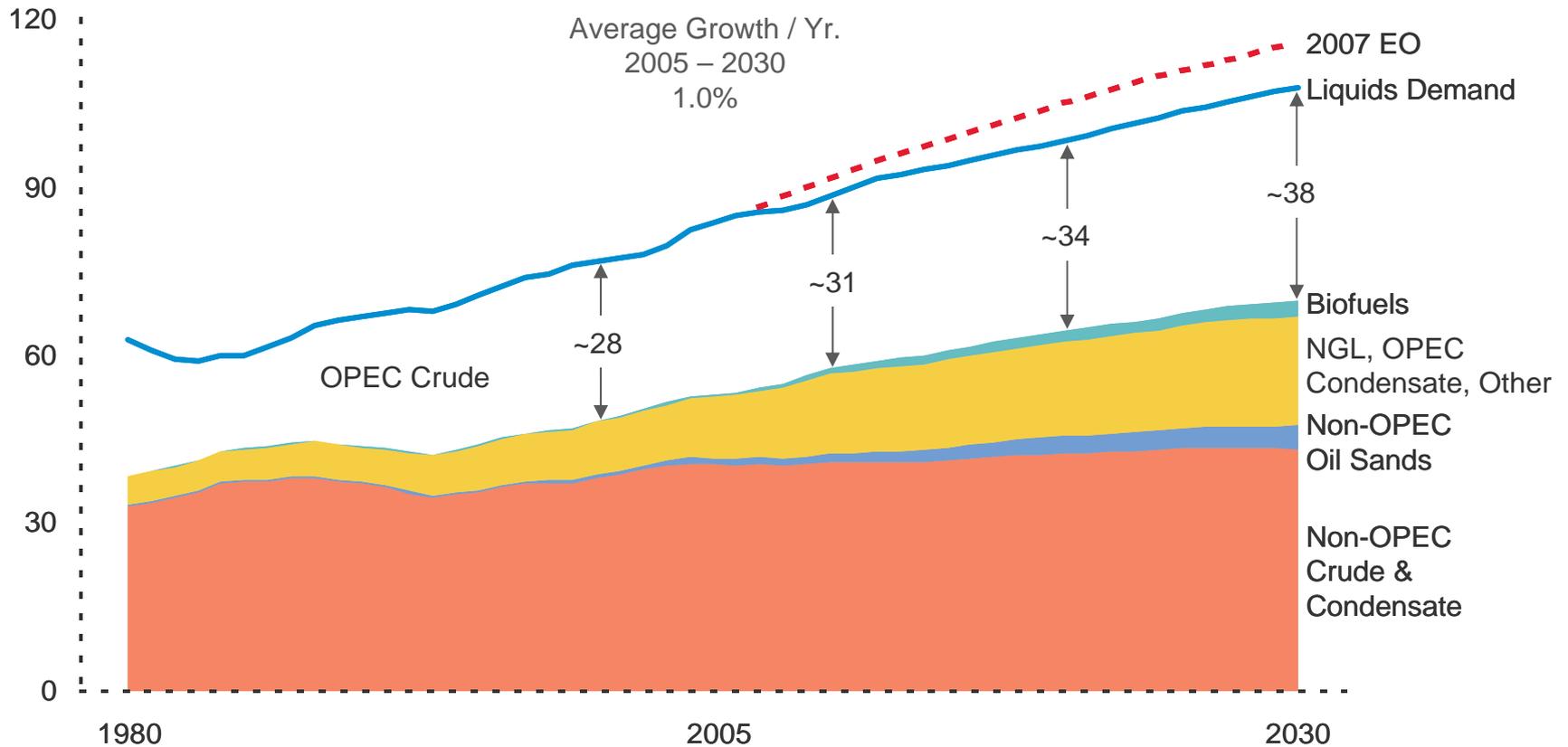


global liquids supply and demand



global liquids supply and demand

MBDOE

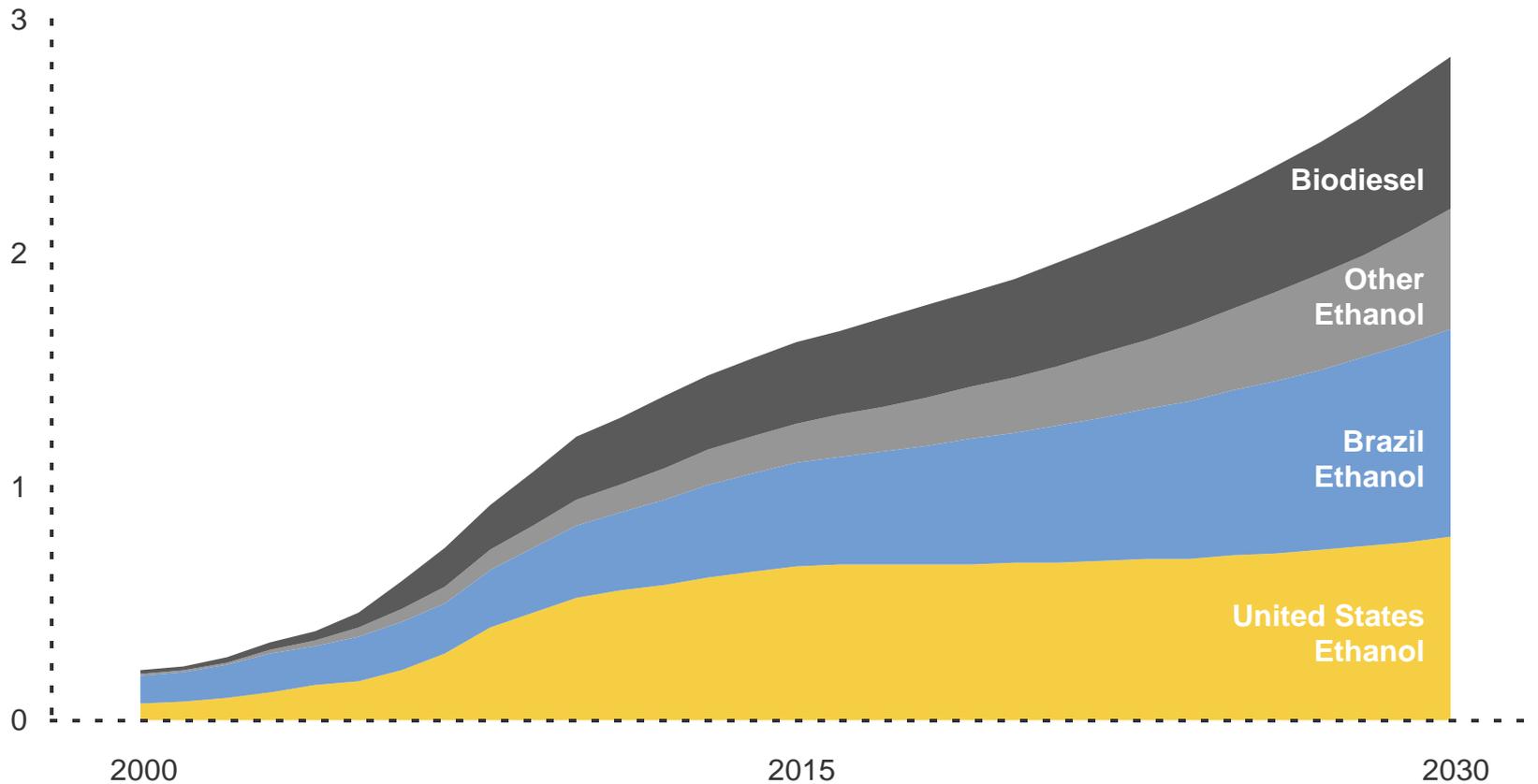


biofuels by region

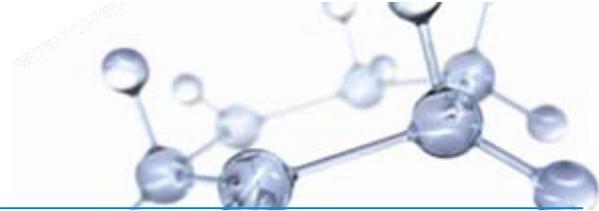


biofuels by region

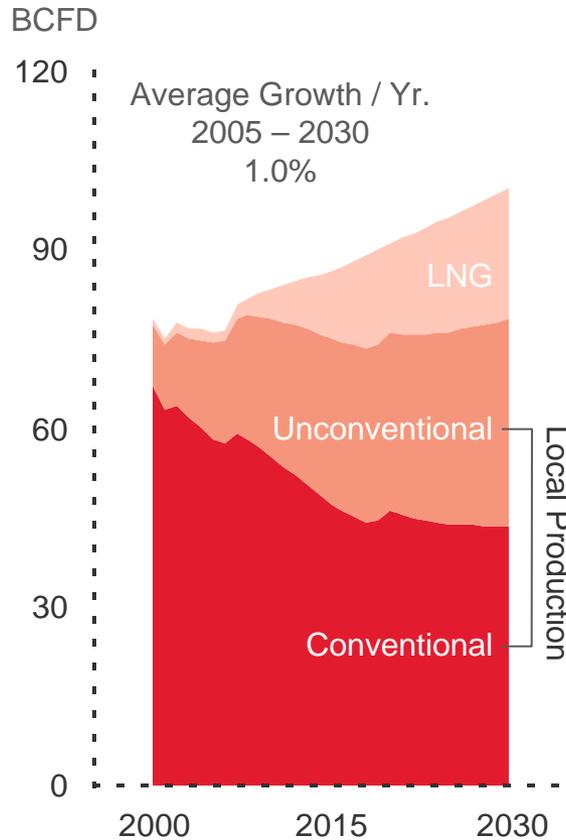
MBDOE



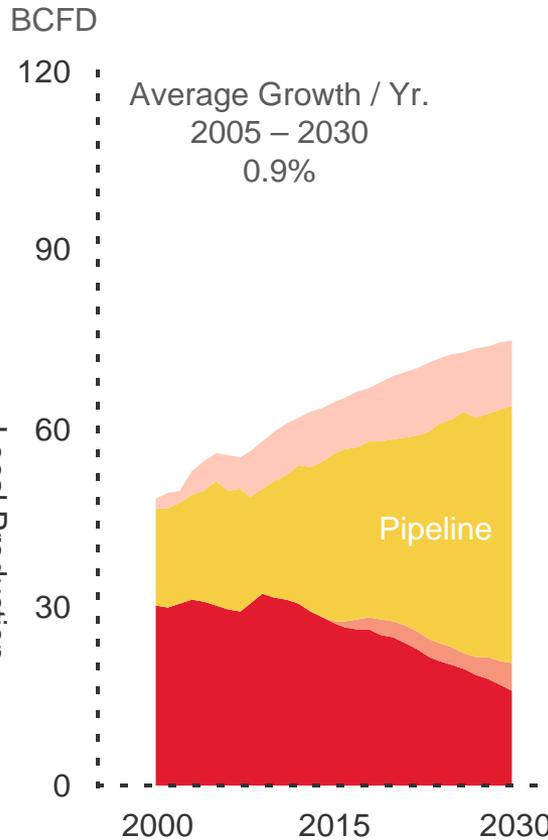
gas supply / demand balance



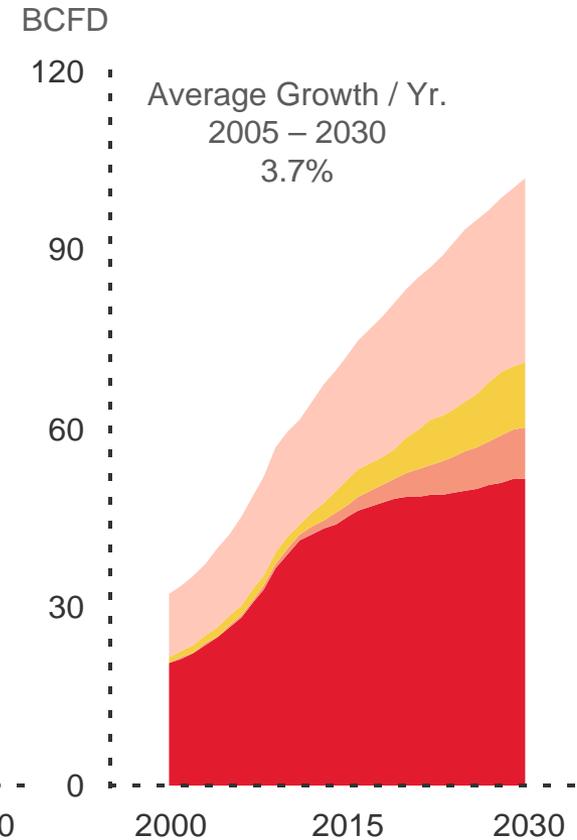
North America



Europe



Asia Pacific

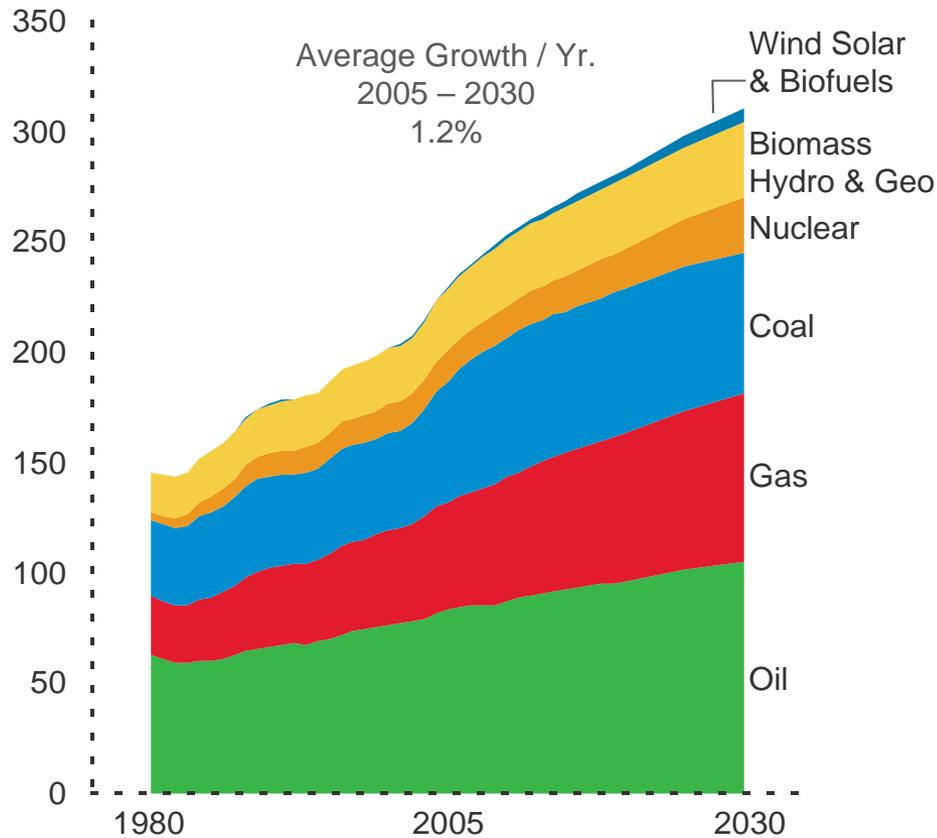


global energy demand & CO₂ emissions



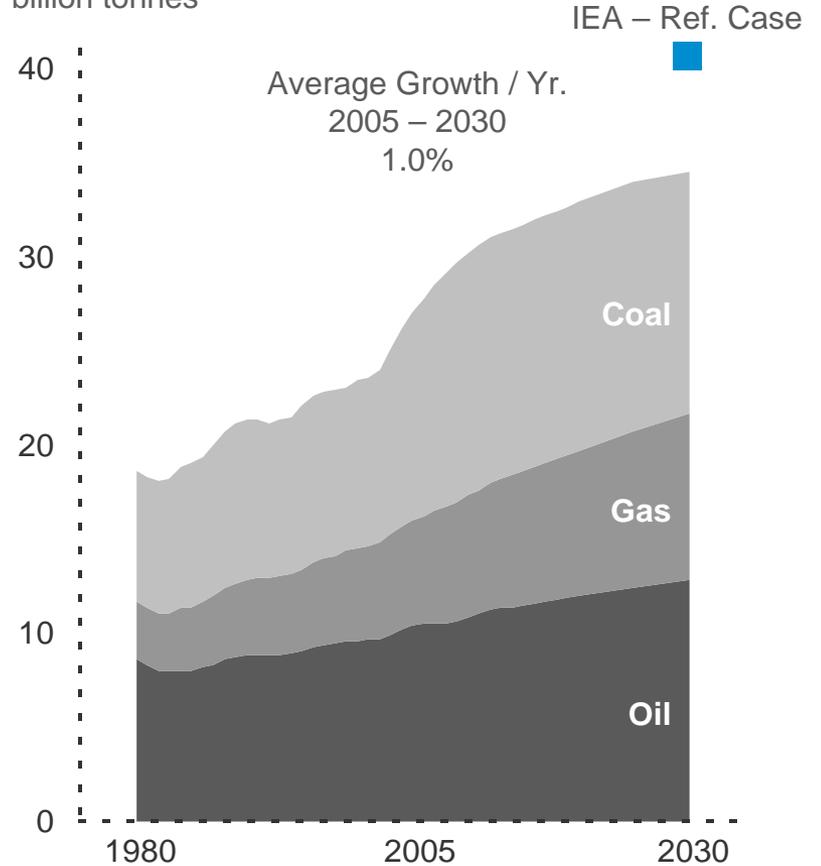
energy demand

MBDOE

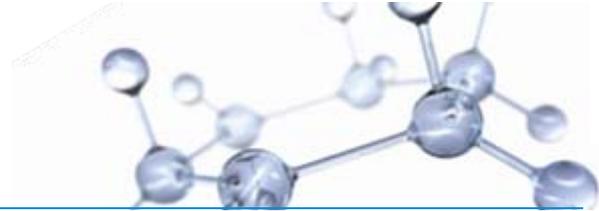


CO₂ emissions

billion tonnes

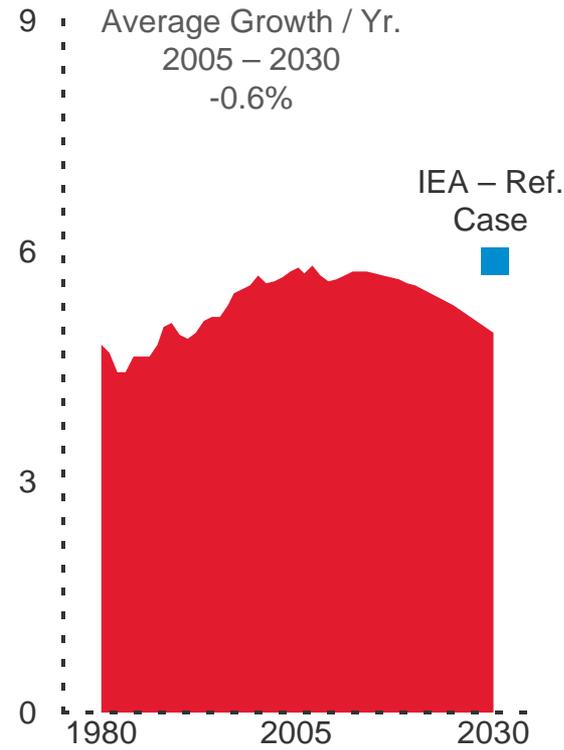


CO₂ outlook by region



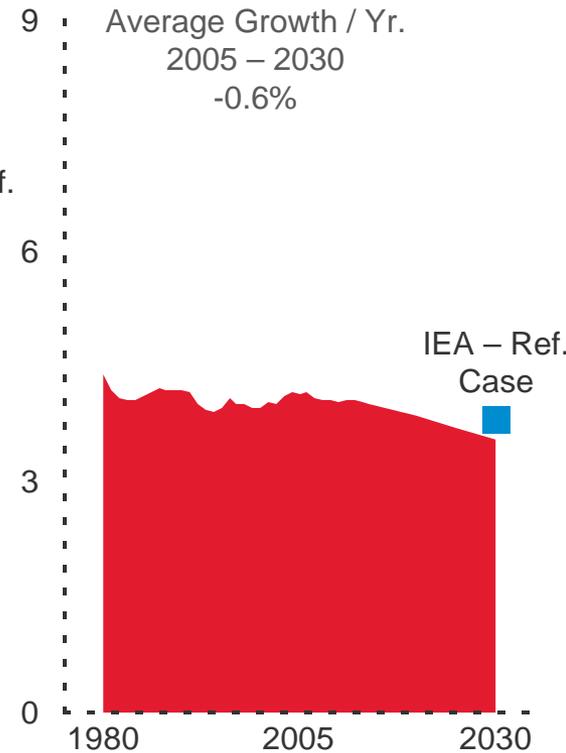
United States

billion tonnes



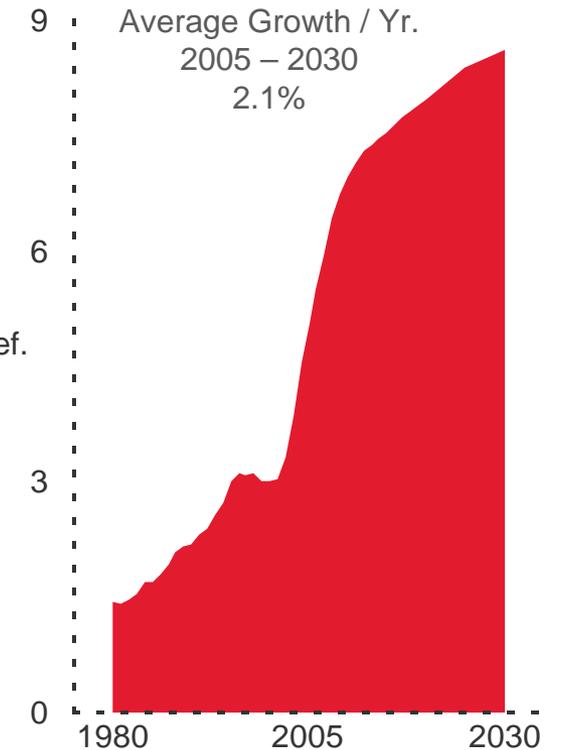
European Union

billion tonnes

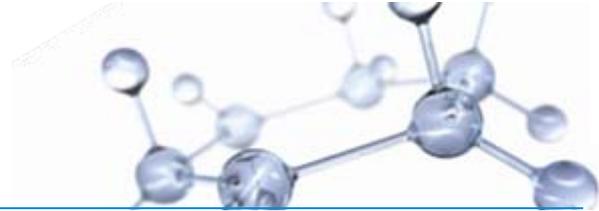


China

billion tonnes



summary



- economic progress, especially in developing countries continues to drive energy demand 35% higher
- oil, gas and coal will remain predominant at ~80% of energy mix, even with significant growth in alternatives
- CO₂ emissions expected to rise globally, even with improved efficiency



the energy imperative

integrated set of solutions



conclusion



- population and economies will expand; energy demand and CO₂ emissions will rise
- integrated set of solutions required
 - increase efficiency
 - expand supply
 - mitigate emissions
- technology breakthroughs are critical
- meeting this demand will require a global effort