

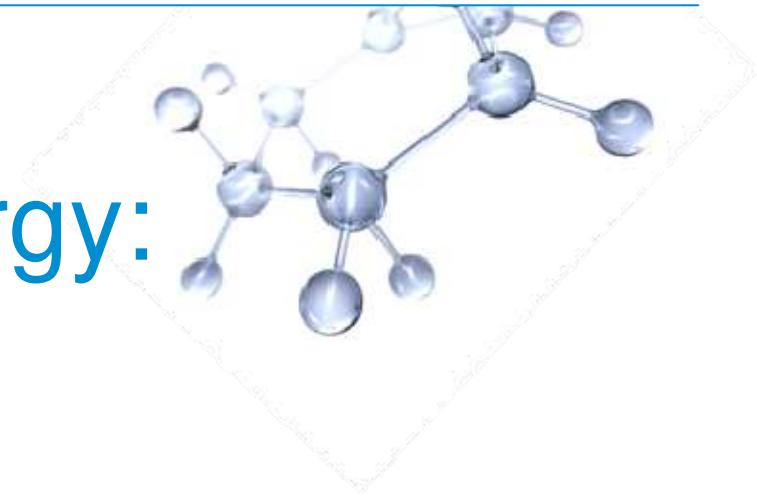


Taking on the world's toughest energy challenges.<sup>TM</sup>

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# the outlook for energy: a view to 2030

Todd Onderdonk  
2009 STI/SPFA Fall Conference  
September 24, 2009

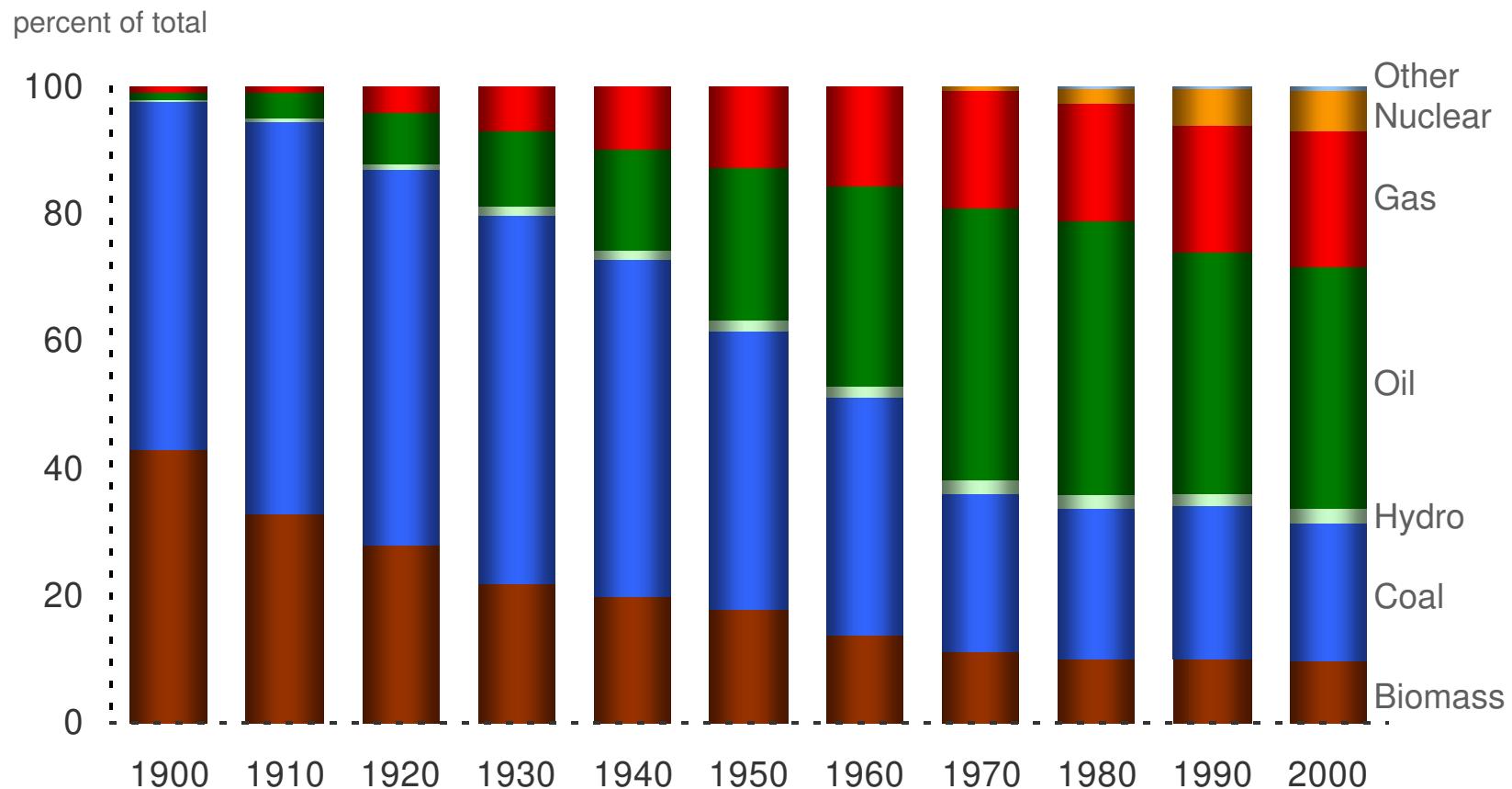


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This presentation includes forward-looking statements. Actual future conditions (including economic conditions, energy demand, and energy supply) could differ materially due to changes in technology, the development of new supply sources, political 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.



## evolving energy sources



# the outlook for energy



100 countries

15 demand sectors

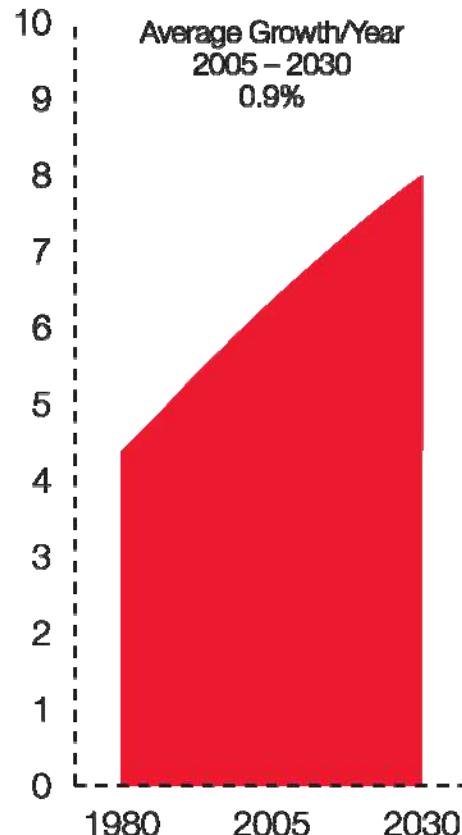
20 fuel types



## global economics and energy

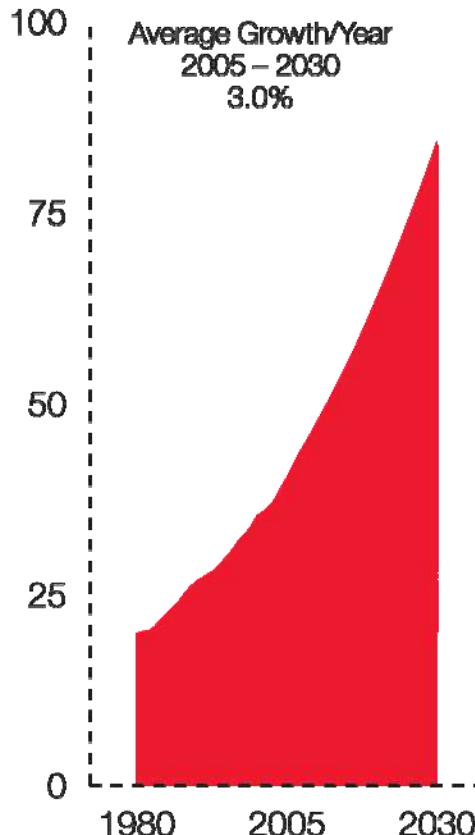
### population

billion



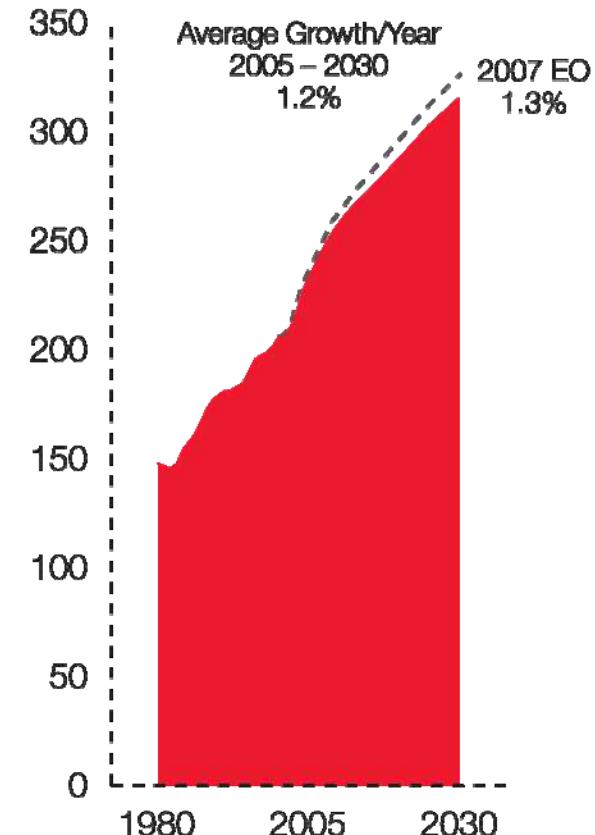
### GDP

trillion 2005\$



### energy demand

MBDOE

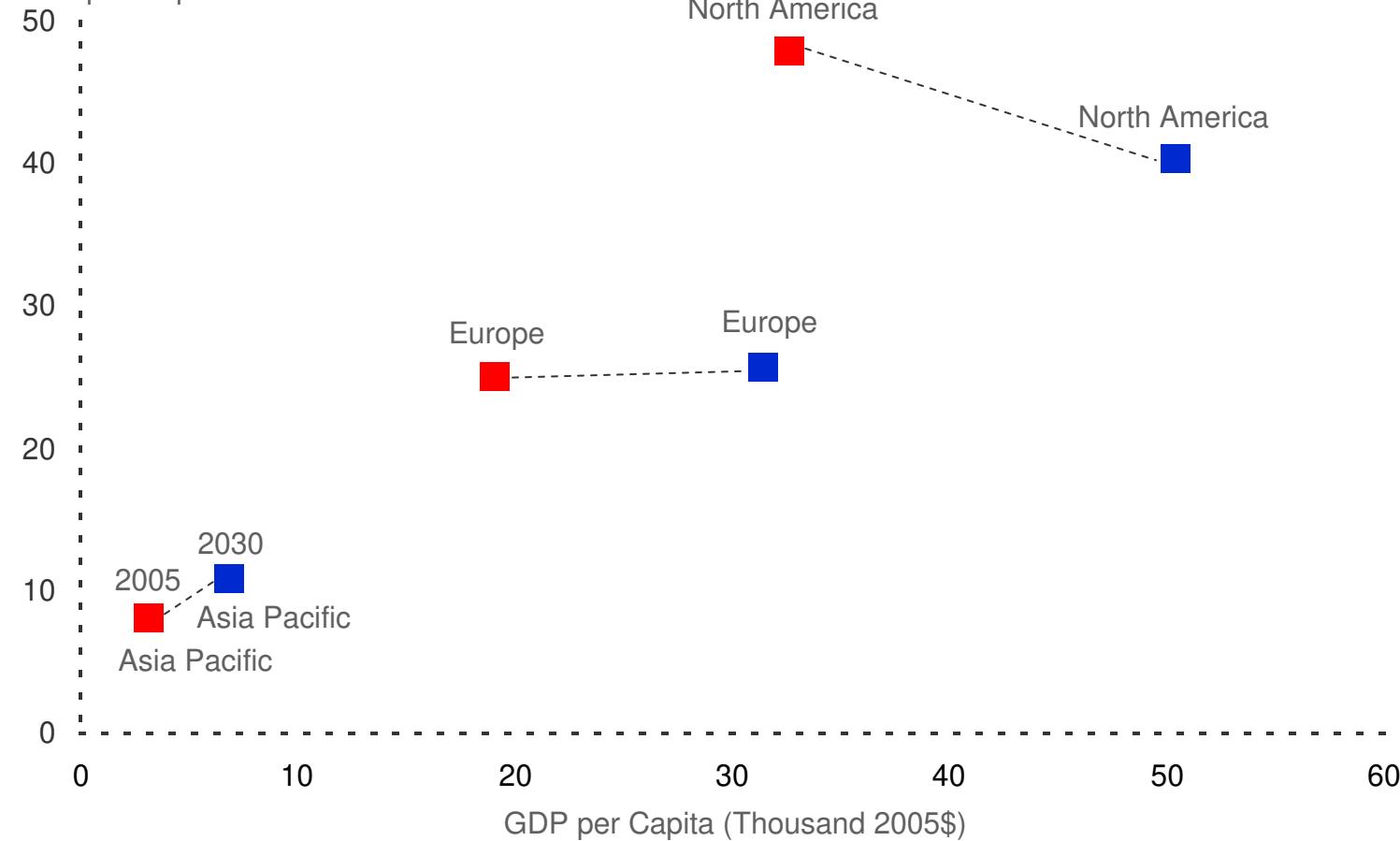




## energy demand vs. income

**energy demand vs. income**

BOE per Capita



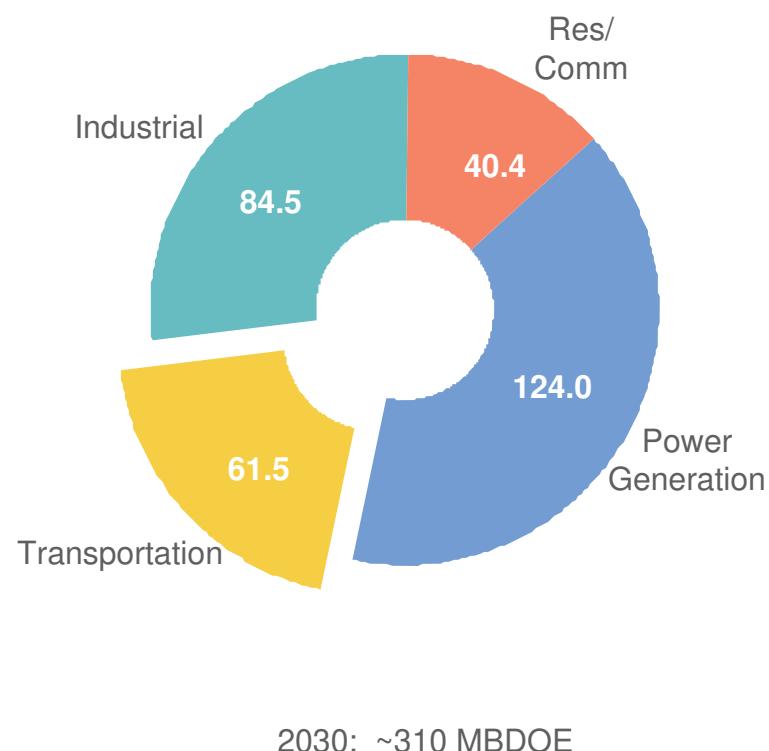


## global – transportation

### global transportation

by sector

MBDOE

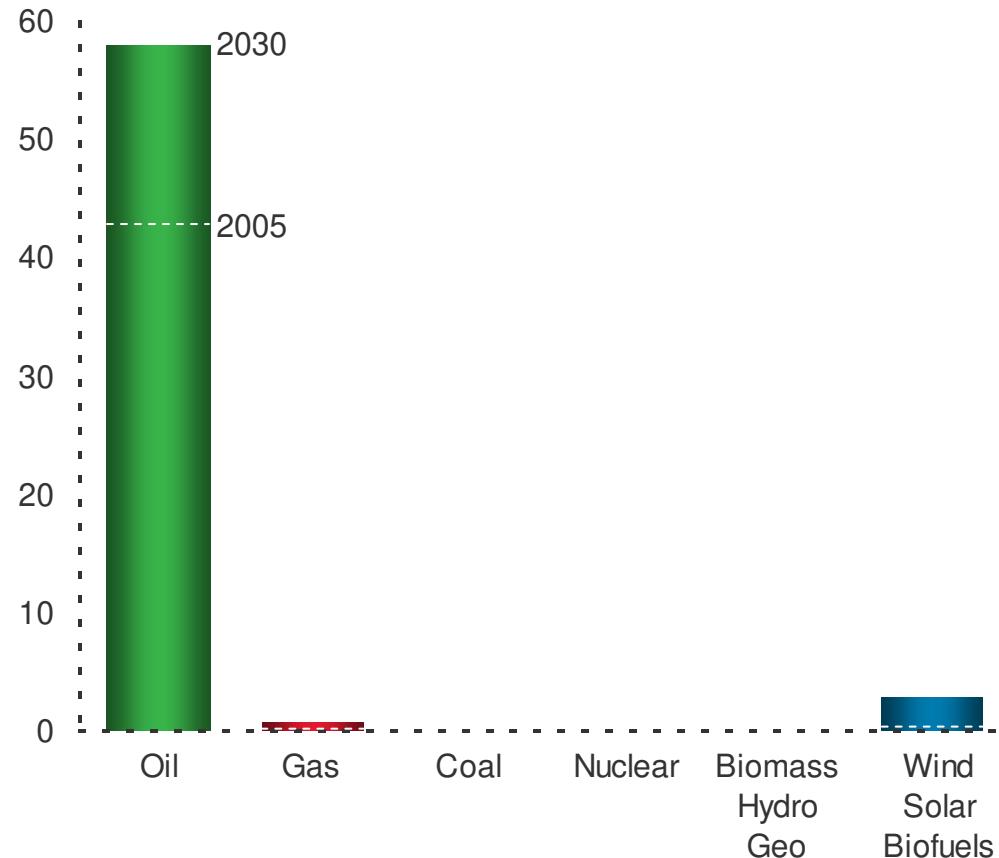


### global transportation

by fuel

MBDOE

Average Growth / Yr.  
2005 – 2030  
1.4%





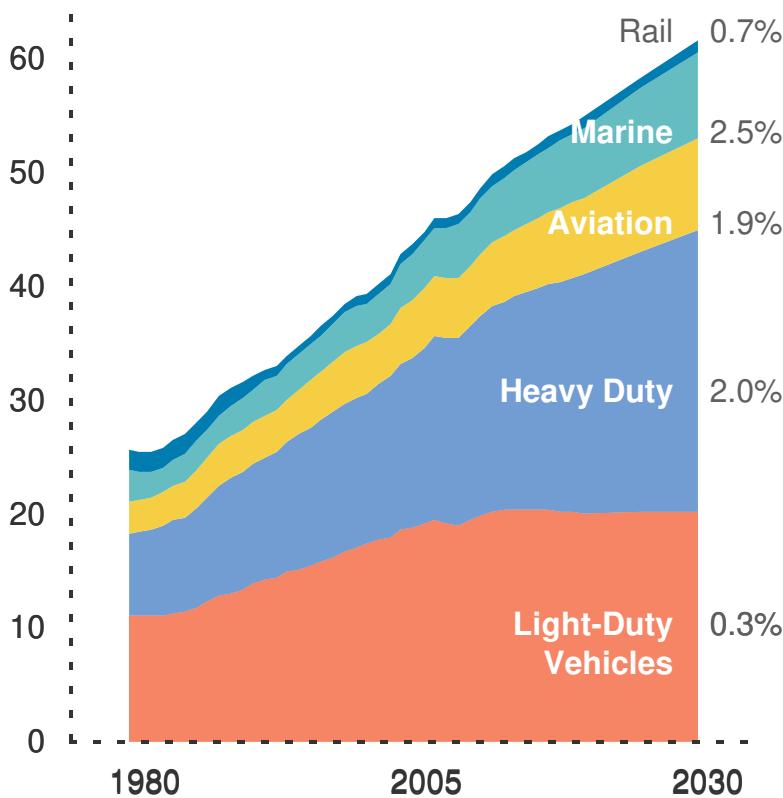
## global – transportation

### global transportation

by sector

MBDOE

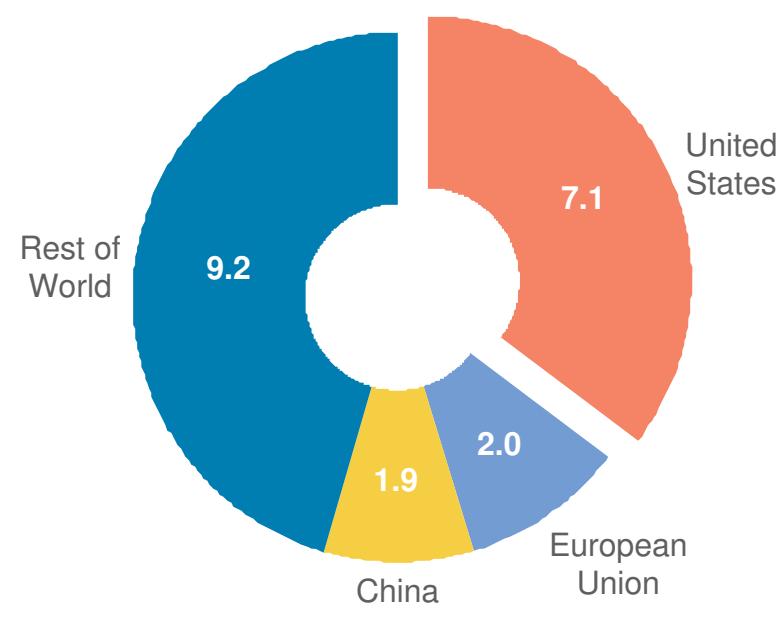
Average Growth / Yr.  
2005 – 2030  
1.4%



### 2030 - LDV fuel demand

by region

MBDOE

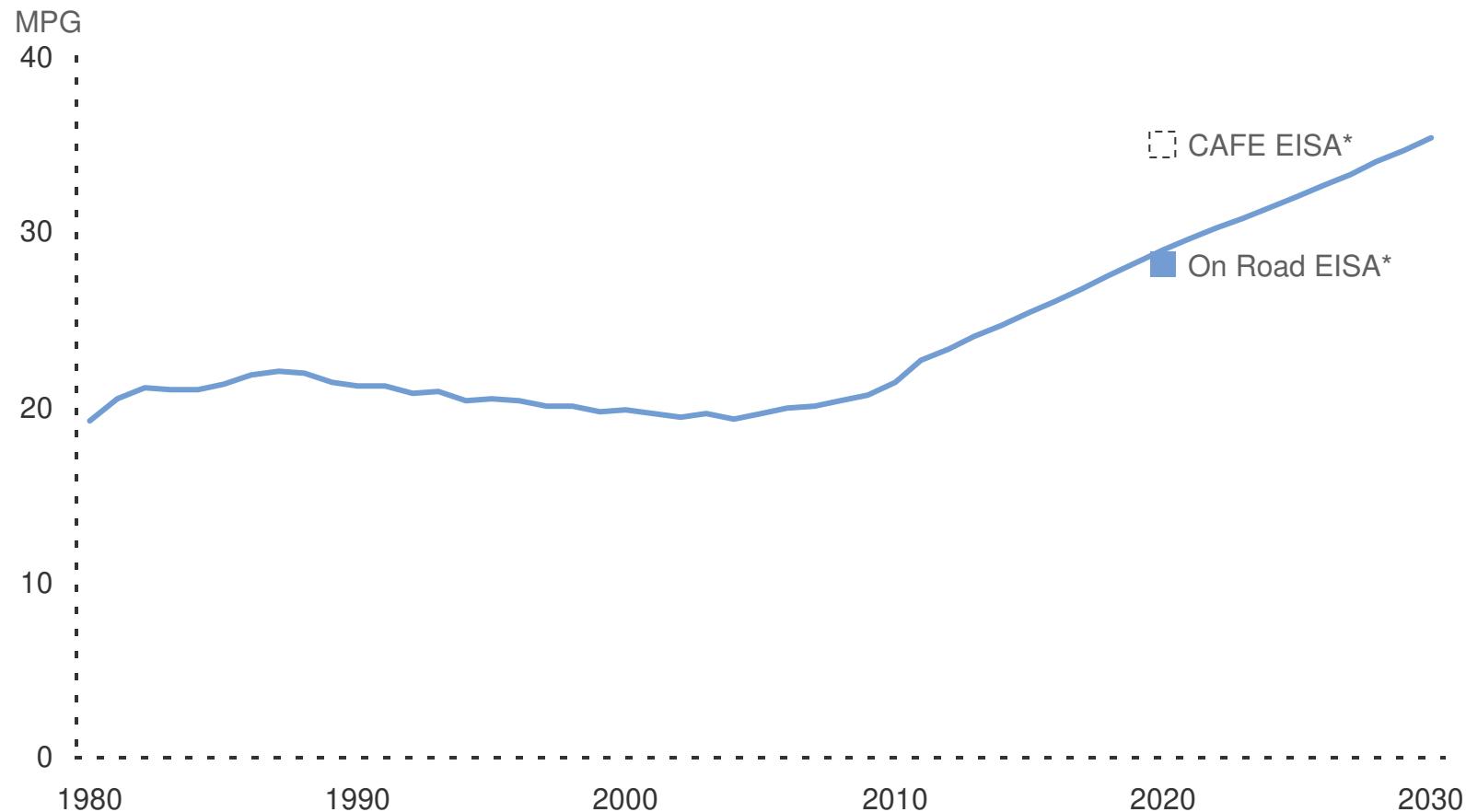


20.2 MBDOE



## U.S. new light-duty vehicles

**U.S. new light-duty vehicle MPG**



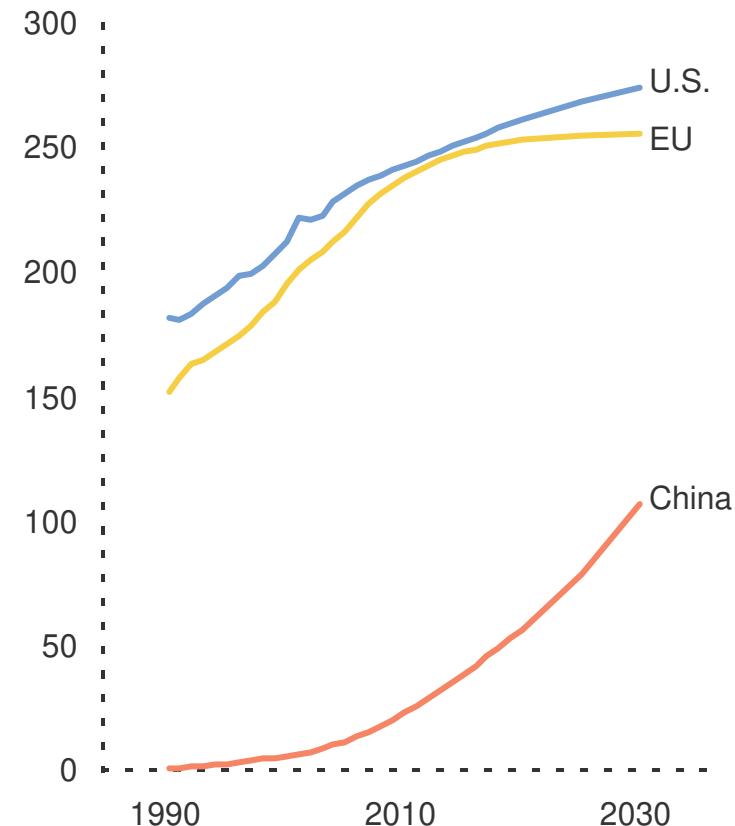
\*EISA – Energy Independence and Security Act



## light-duty vehicles

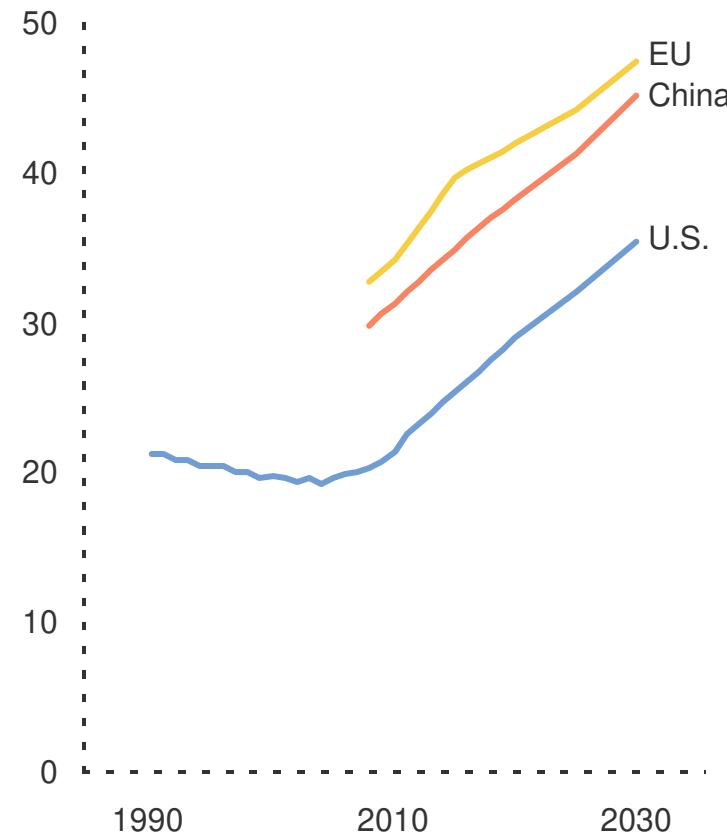
**total fleet size**

millions of vehicles



**new vehicle mpg**

miles / gallon

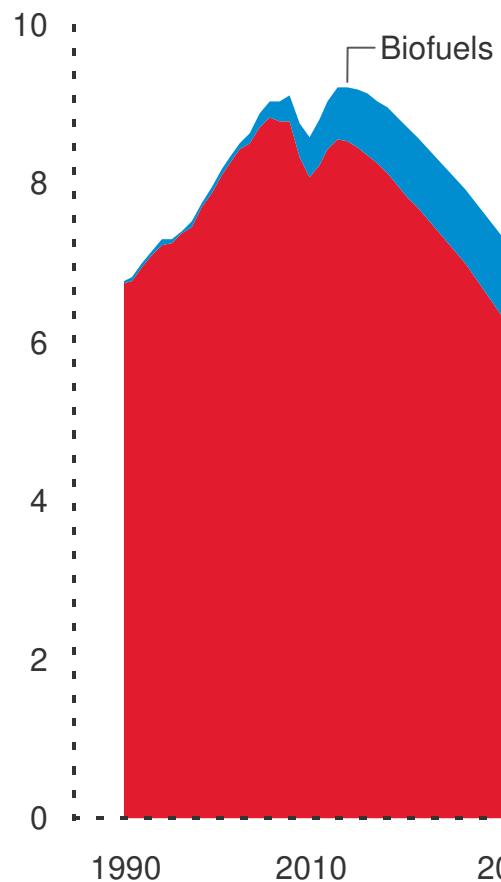




## light-duty-vehicle fuel demand

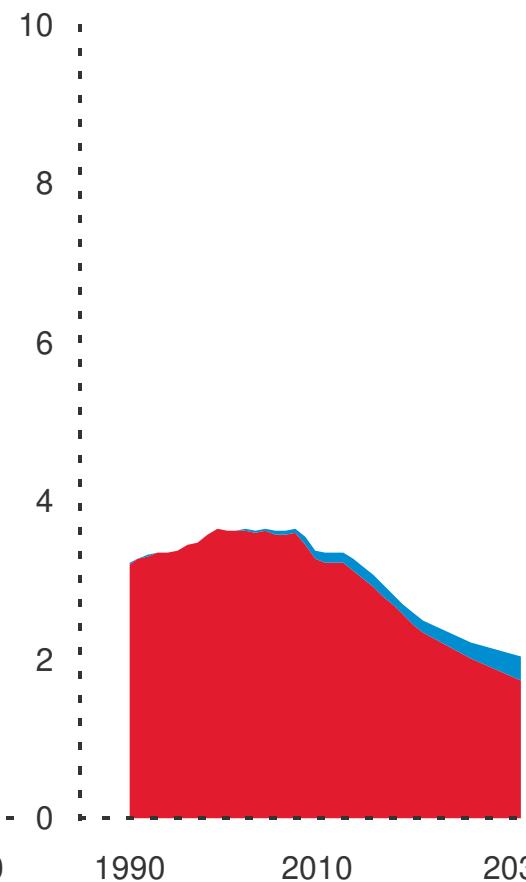
**United States**

MBDOE



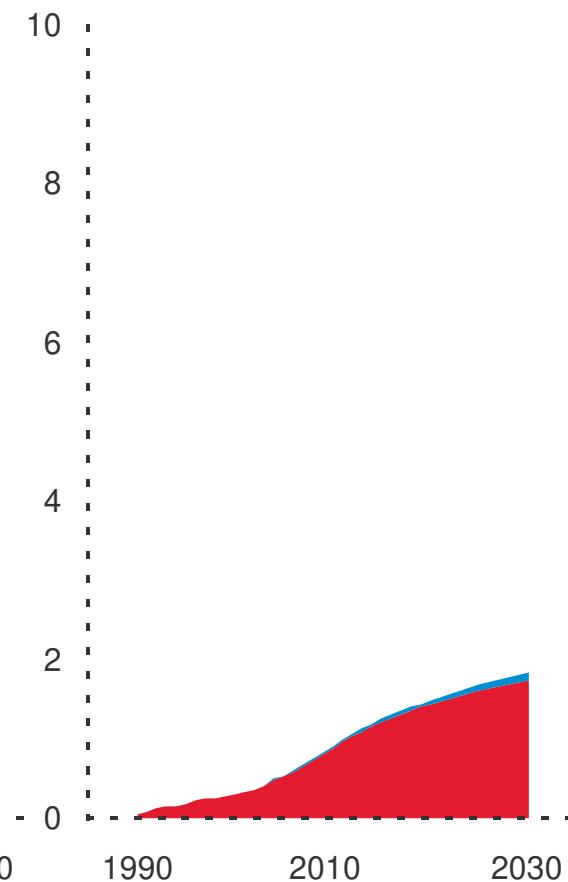
**European Union**

MBDOE



**China**

MBDOE

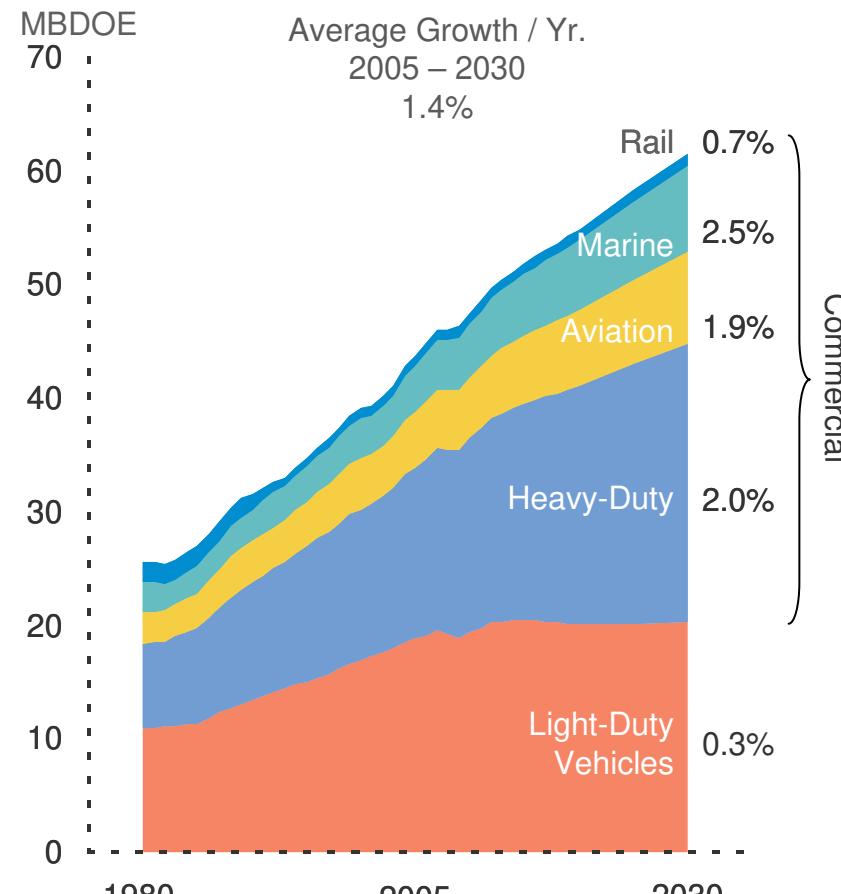




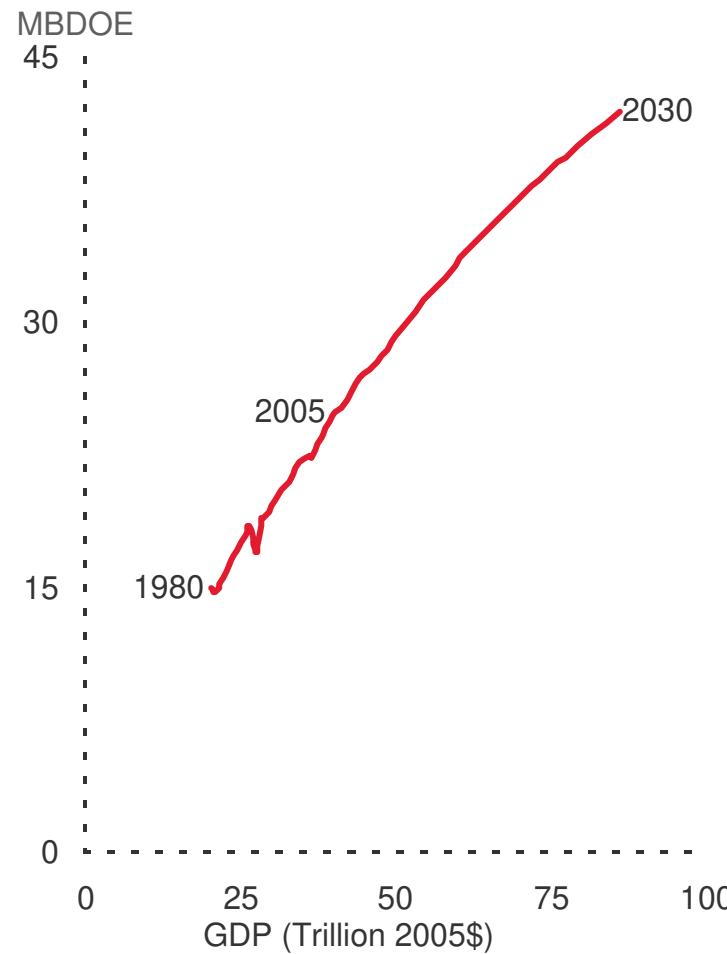
## global commercial transportation

### global commercial transportation

by sector



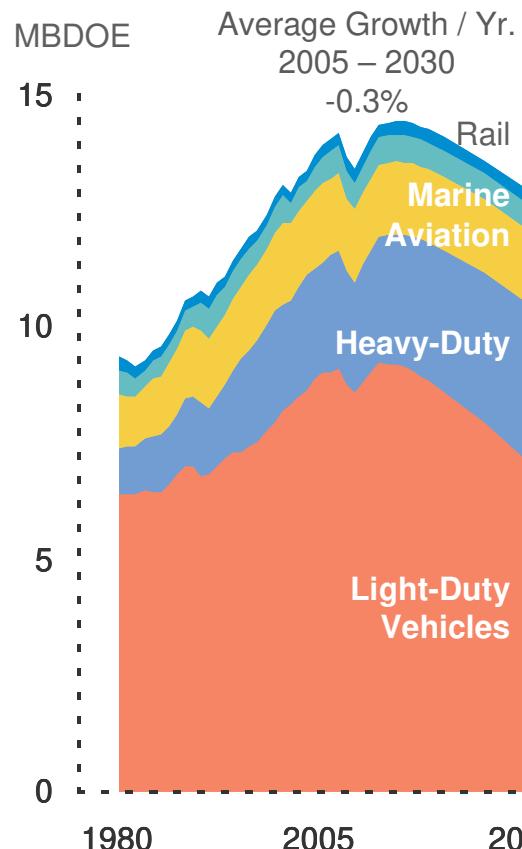
### commercial transportation v. GDP



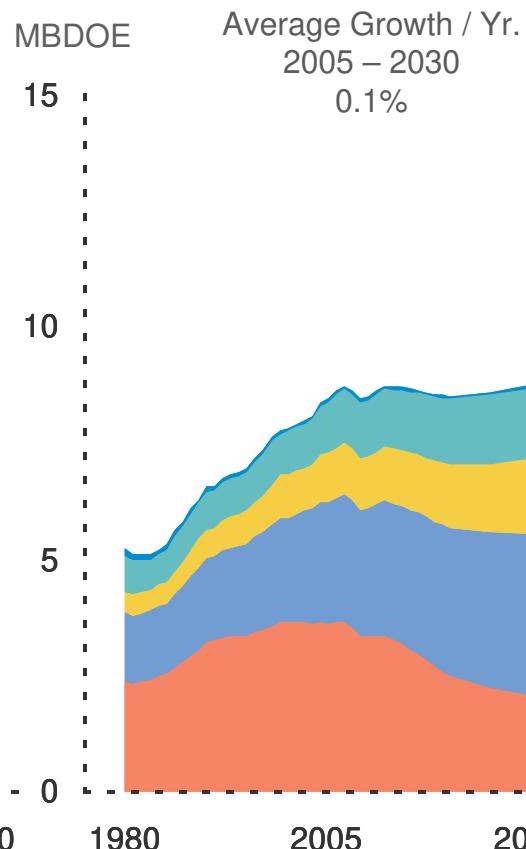


## transportation by sector

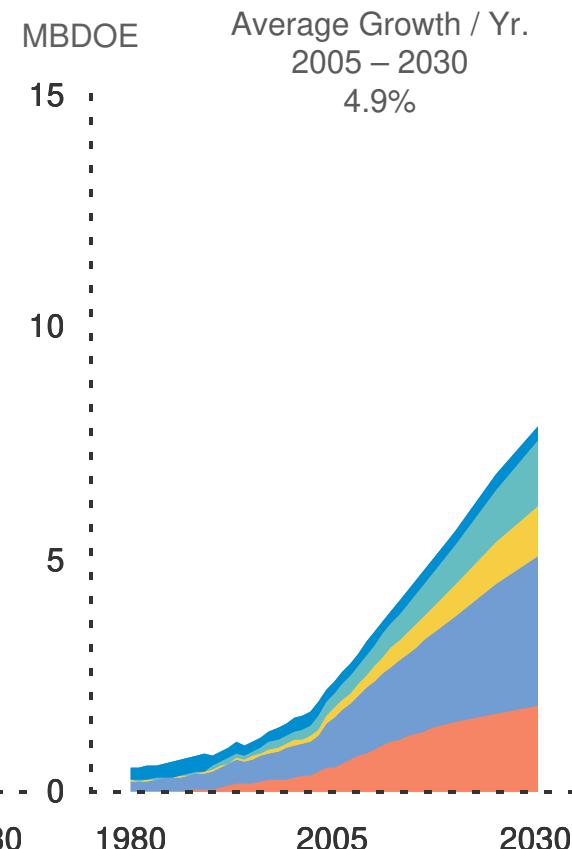
### United States



### European Union



### China



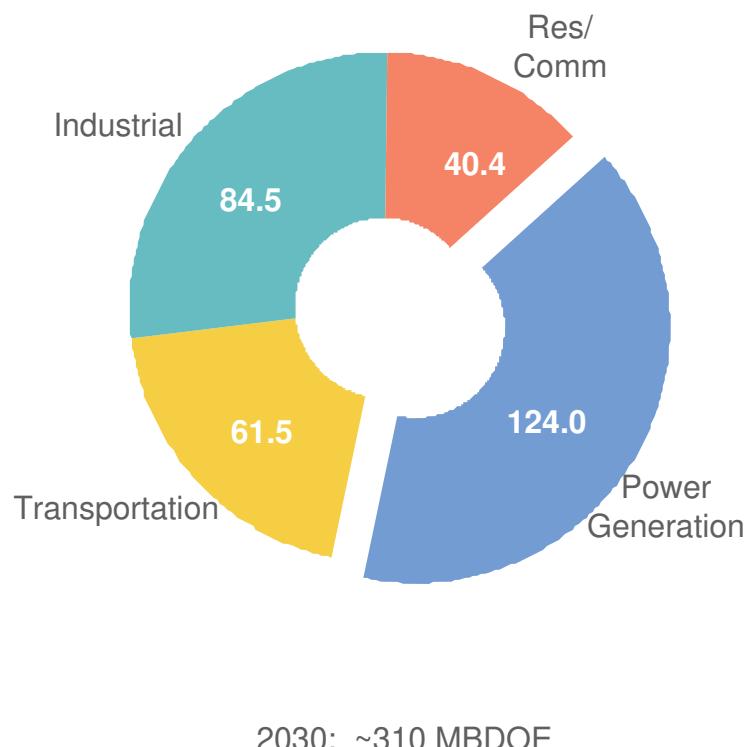


## global – power generation

### global power generation

by sector

MBDOE

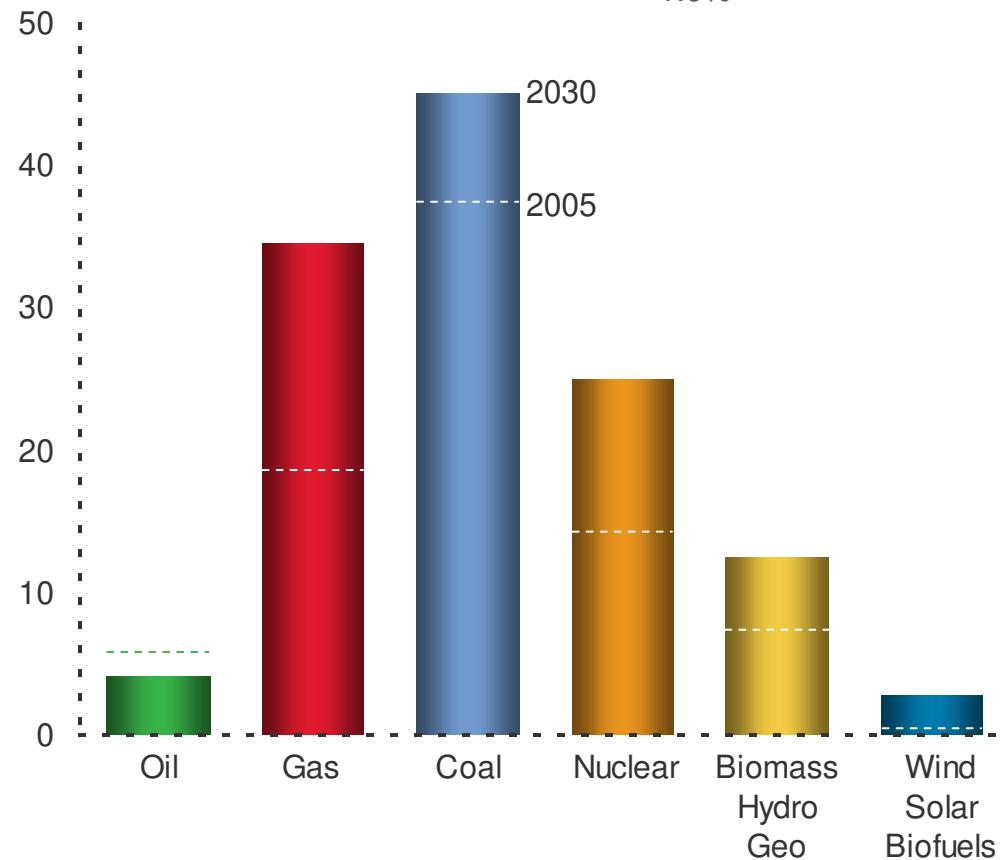


### global power generation

by fuel

MBDOE

Average Growth / Yr.  
2005 – 2030  
1.6%



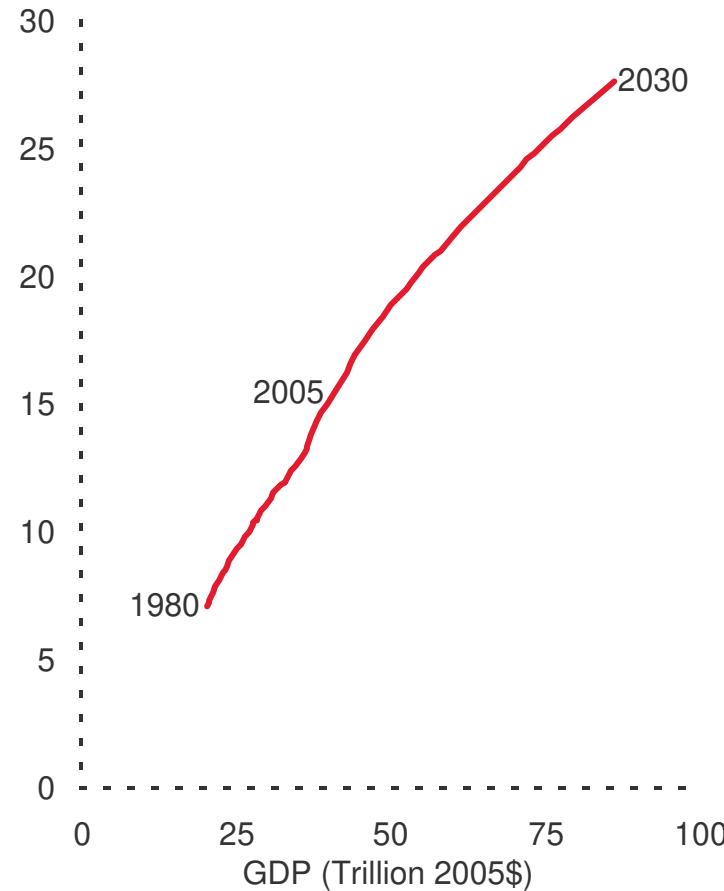


## global power generation

### global electricity use

electricity demand v. GDP

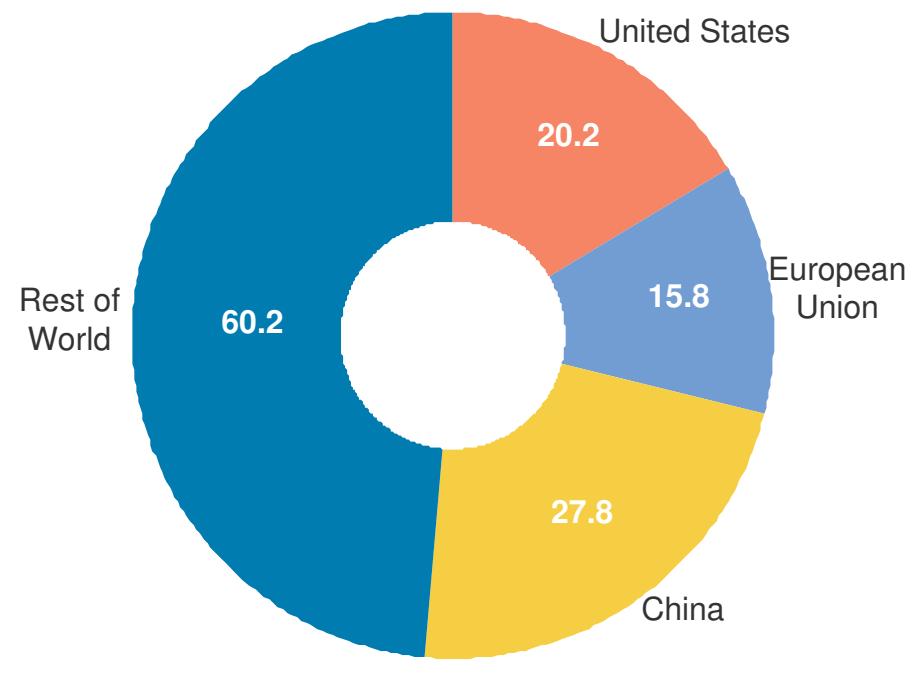
K Terawatt hours



### global power generation fuel demand

by region

MBDOE



2030: ~124 MBDOE

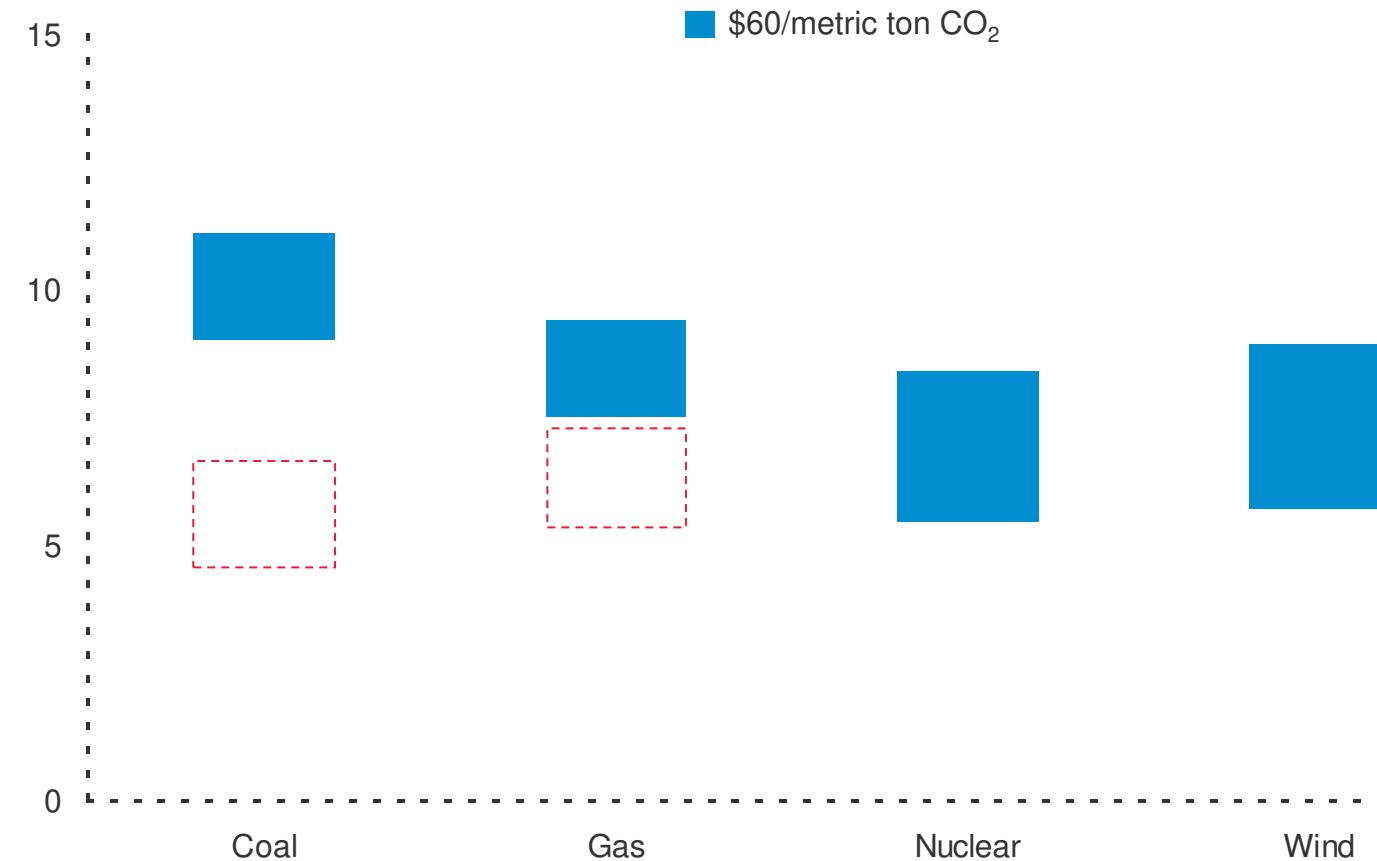


# United States power generation cost

## United States power generation cost

U.S. baseload, startup 2025

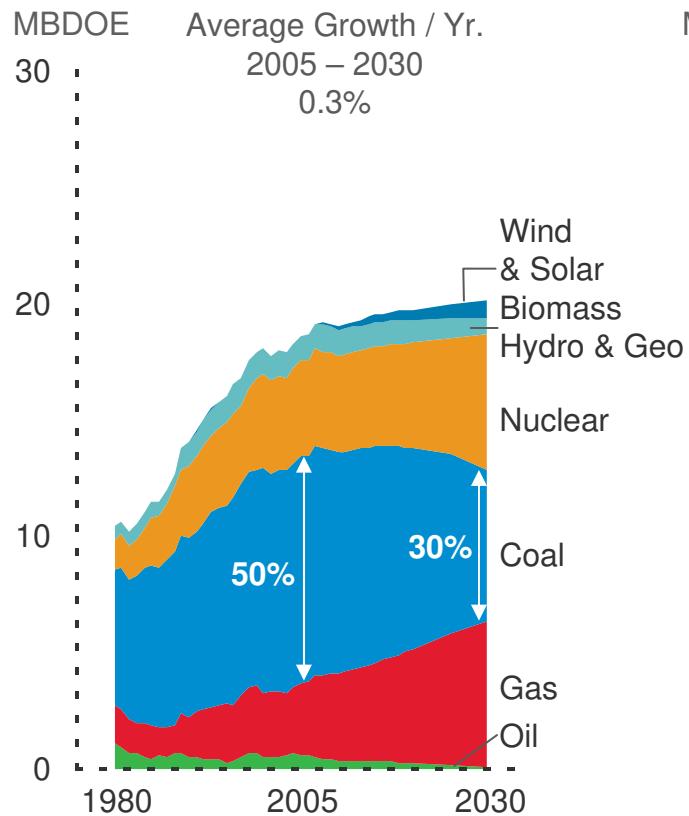
2005 cents/ kWhr



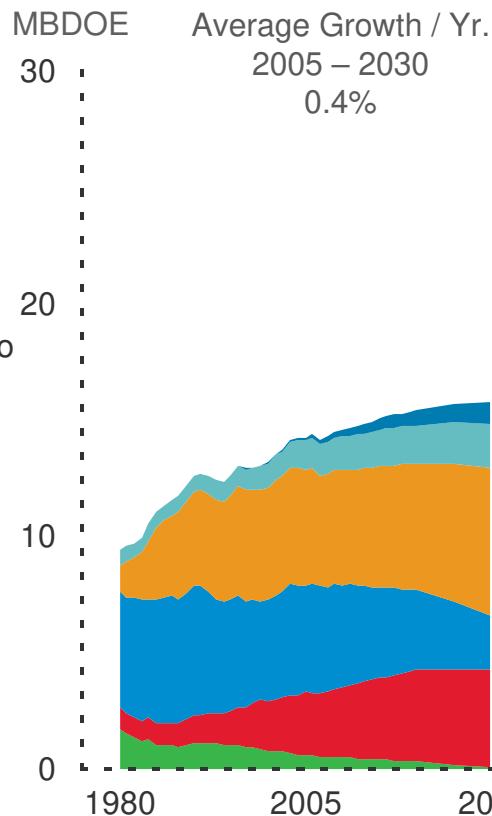


## power generation by region

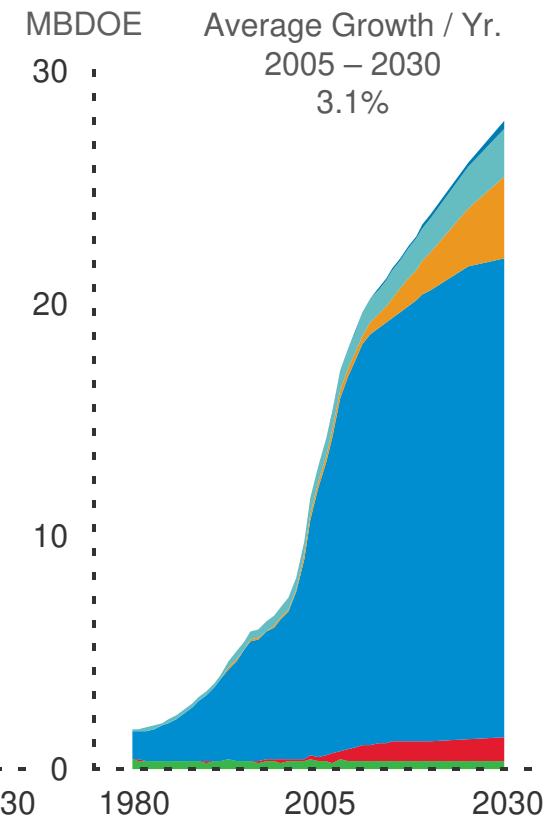
### United States



### European Union



### China





## growing global energy demand by sector

### global energy demand

by sector

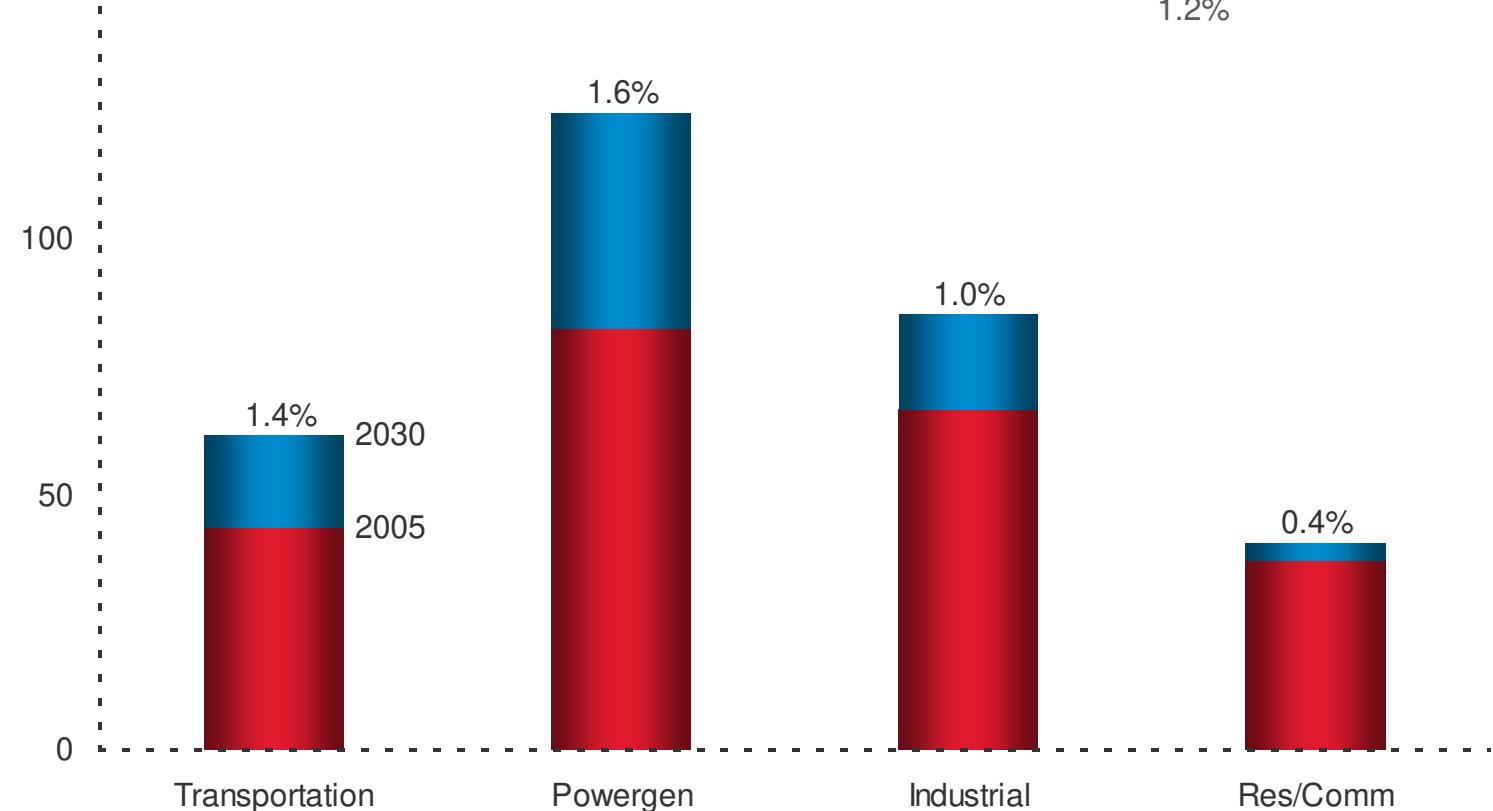
MBDOE

150

Average Growth / Yr.

2005 – 2030

1.2%



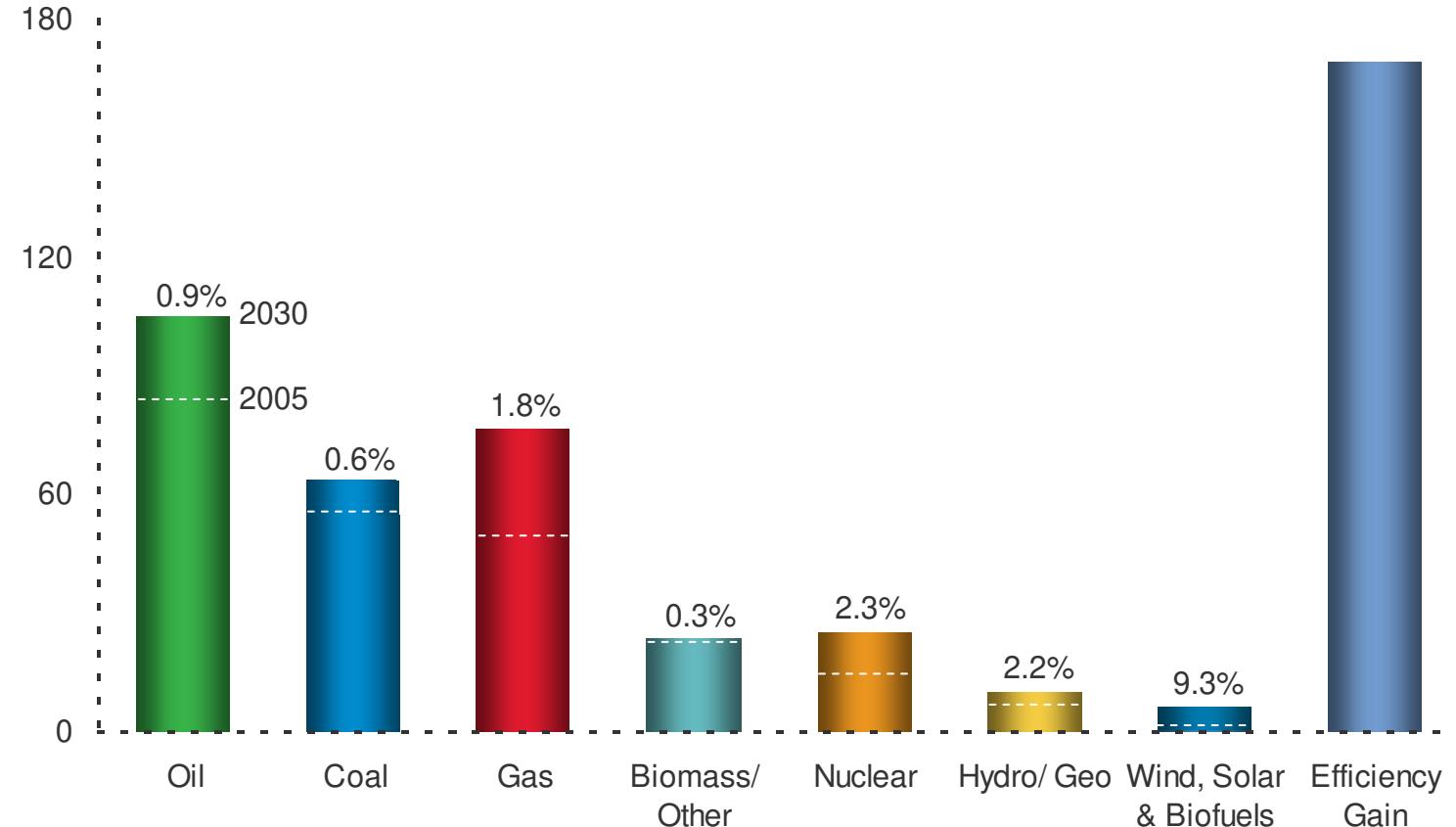
# growing global energy demand



## growing global energy demand

by fuel

MBDOE

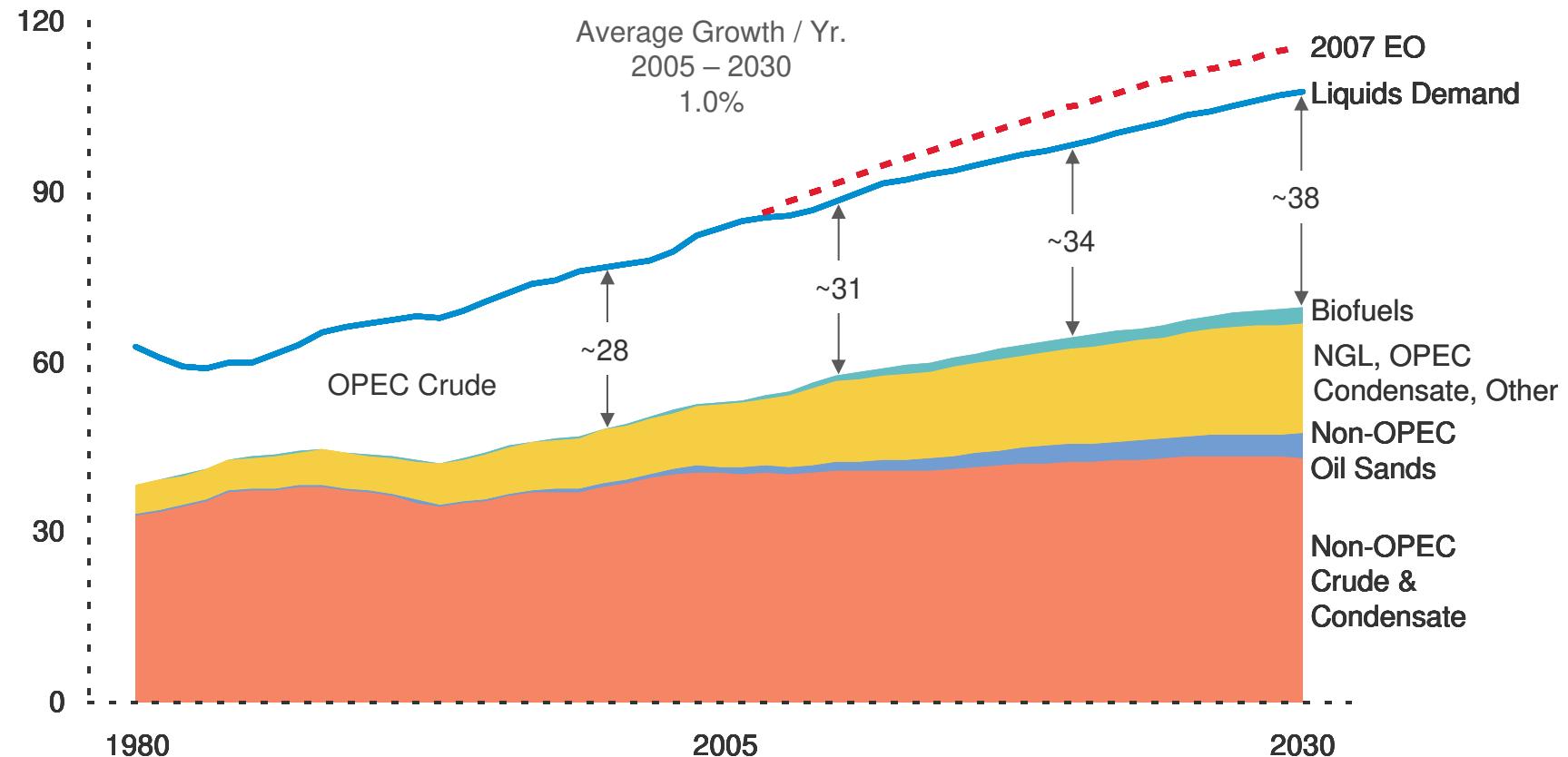




## global liquids supply and demand

### global liquids supply and demand

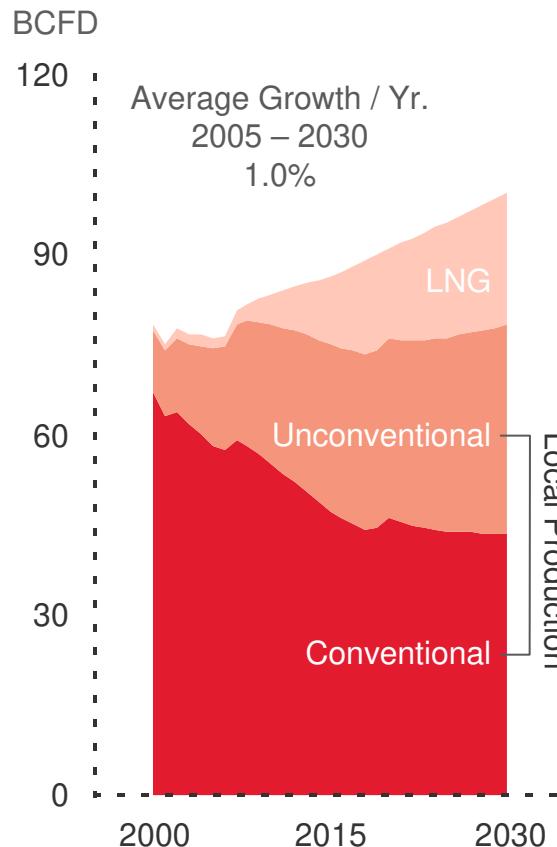
MBDOE



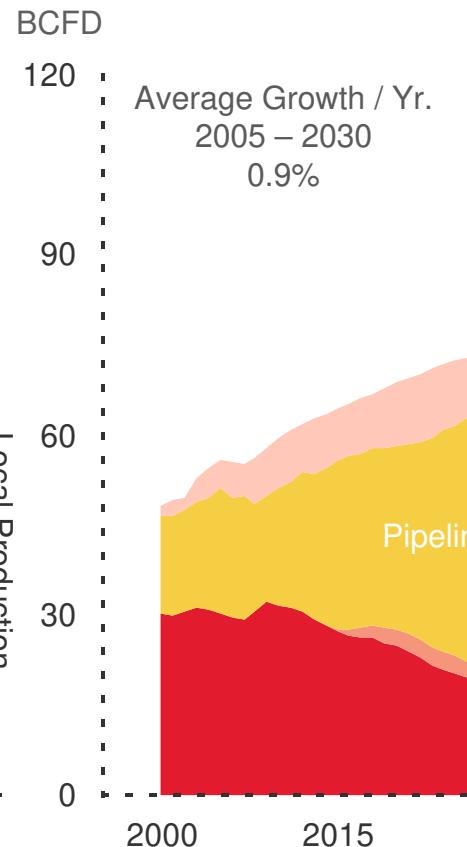


## gas supply / demand balance

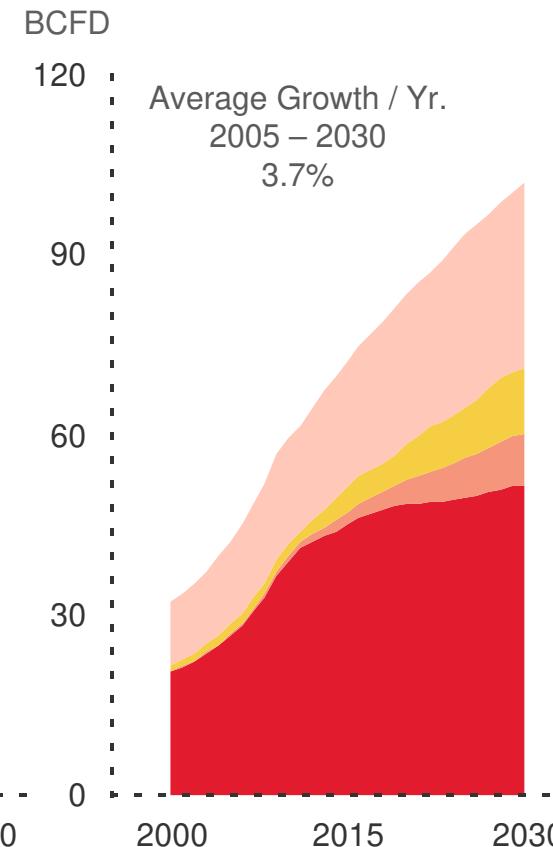
### North America



### Europe



### Asia Pacific

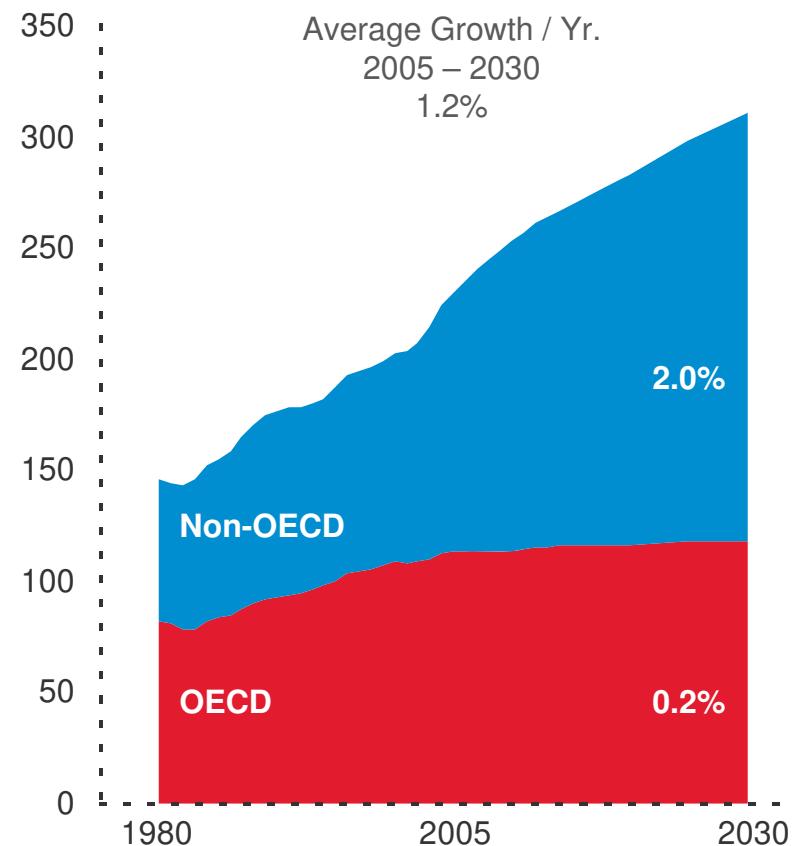




## global energy demand & CO<sub>2</sub> emissions

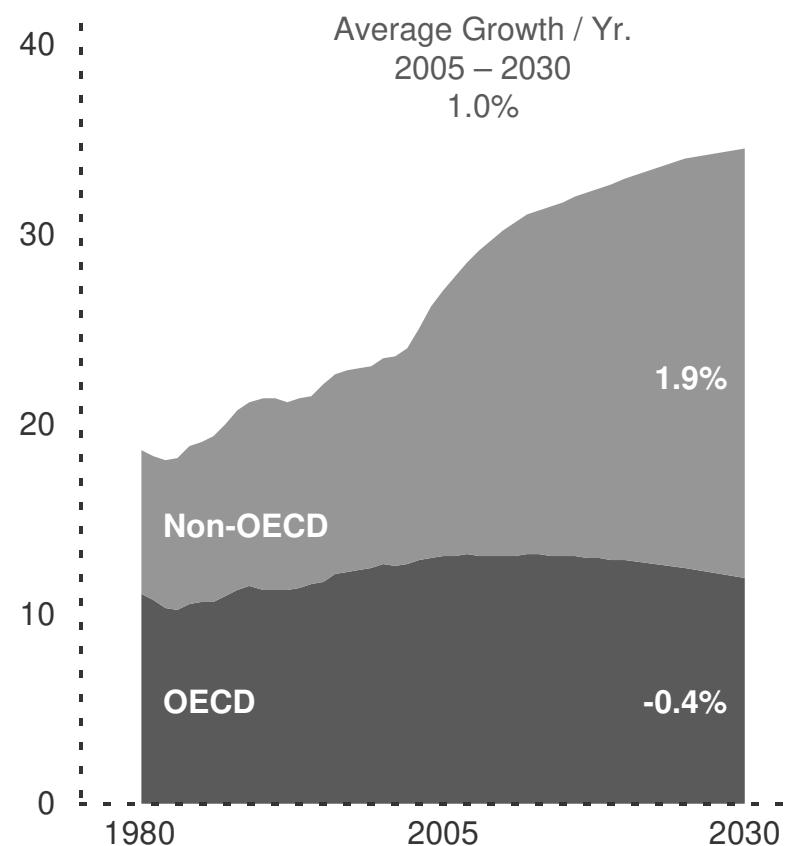
### energy demand

MBDOE

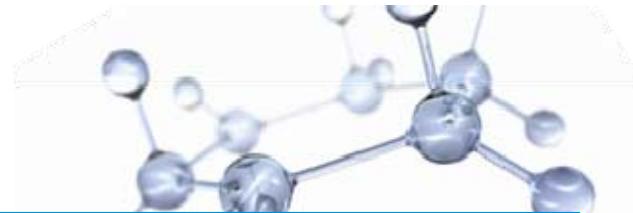


### CO<sub>2</sub> emissions

billion tonnes



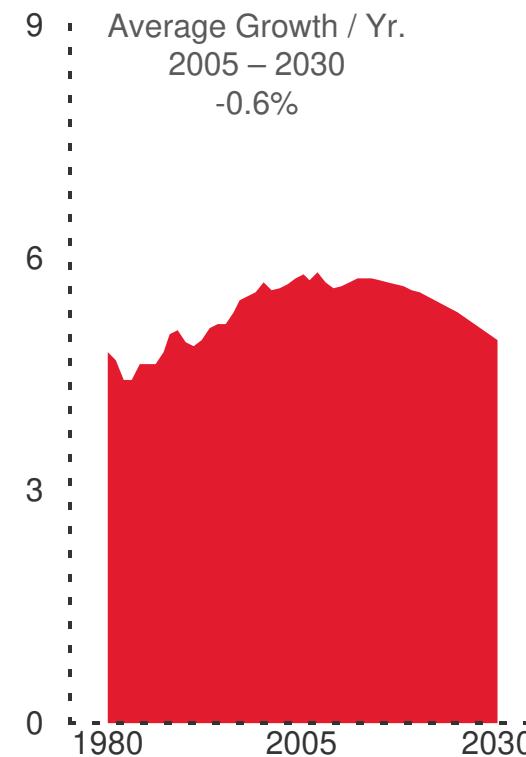
\*OECD: Organization for Economic Co-operation and Development



## CO<sub>2</sub> outlook by region

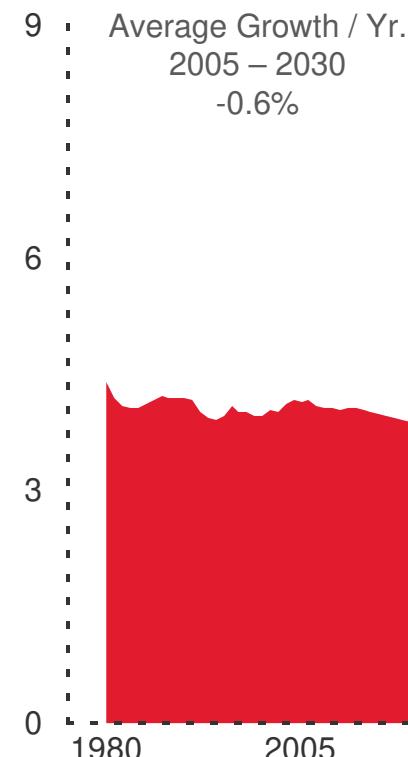
### United States

billion tonnes



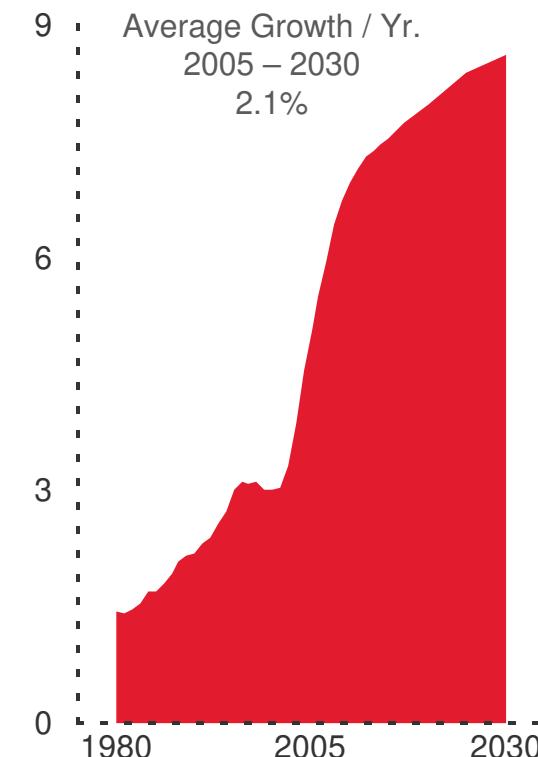
### European Union

billion tonnes



### China

billion tonnes





## the energy imperative

**ExxonMobil**  
Taking on the world's toughest energy challenges.™

integrated set of solutions

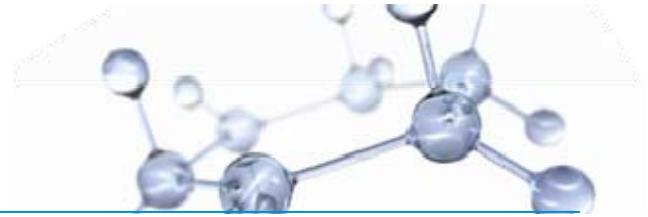


mitigate  
emissions

increase  
efficiency

expand  
supply

## conclusion



- population and economies will expand; energy demand and CO<sub>2</sub> 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