The Outlook for Energy

The Future for North America Natural Gas

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INGAA Foundation Conference

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Overview

- ExxonMobil's World Energy Outlook through 2030
- North America Gas Supply
- Future Challenges and Closing Comments

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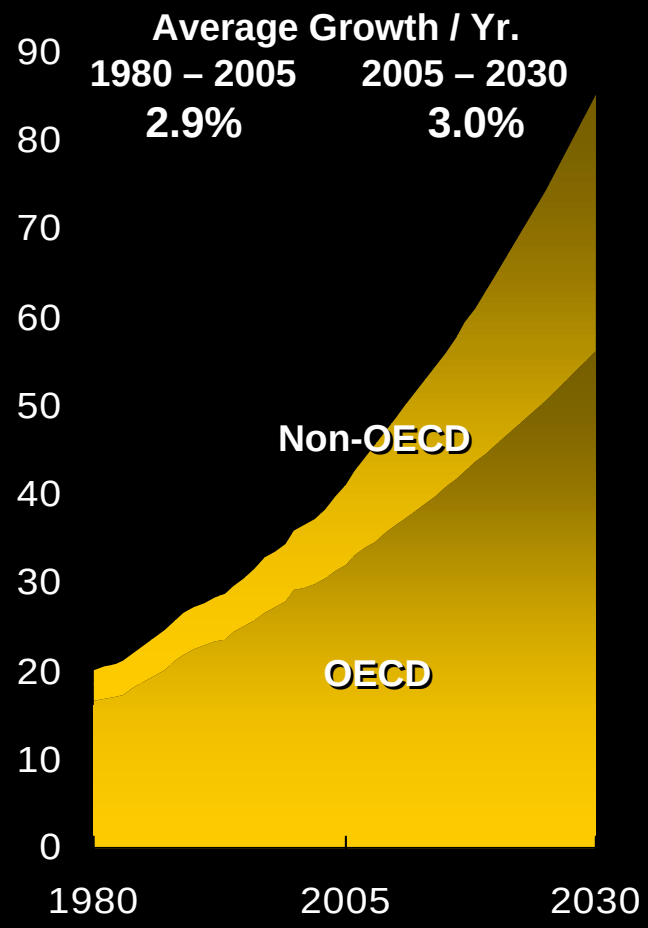
Energy Outlook Highlights

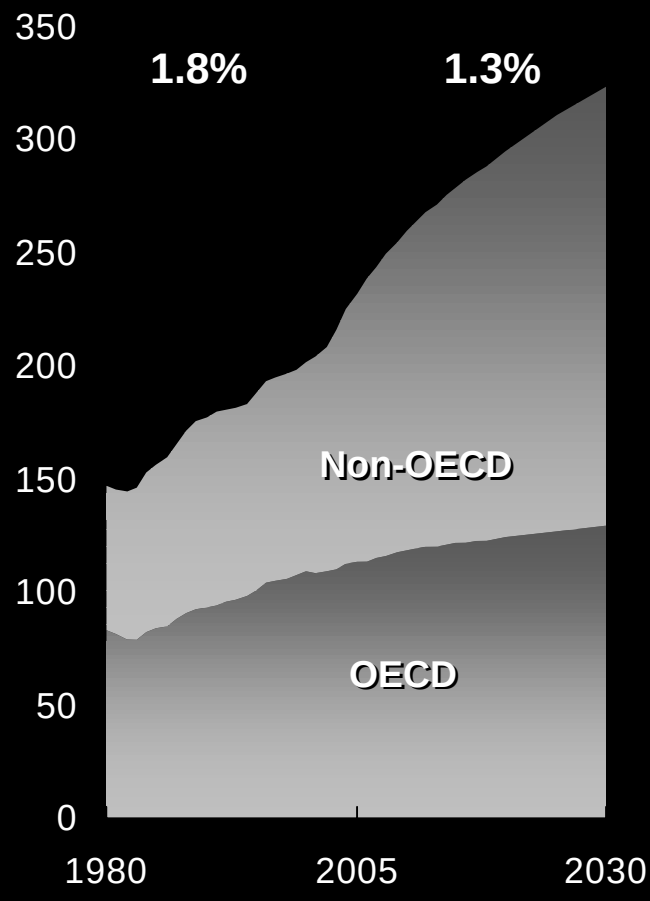
GDP

Trillion 2005$



Energy Demand

MBDOE



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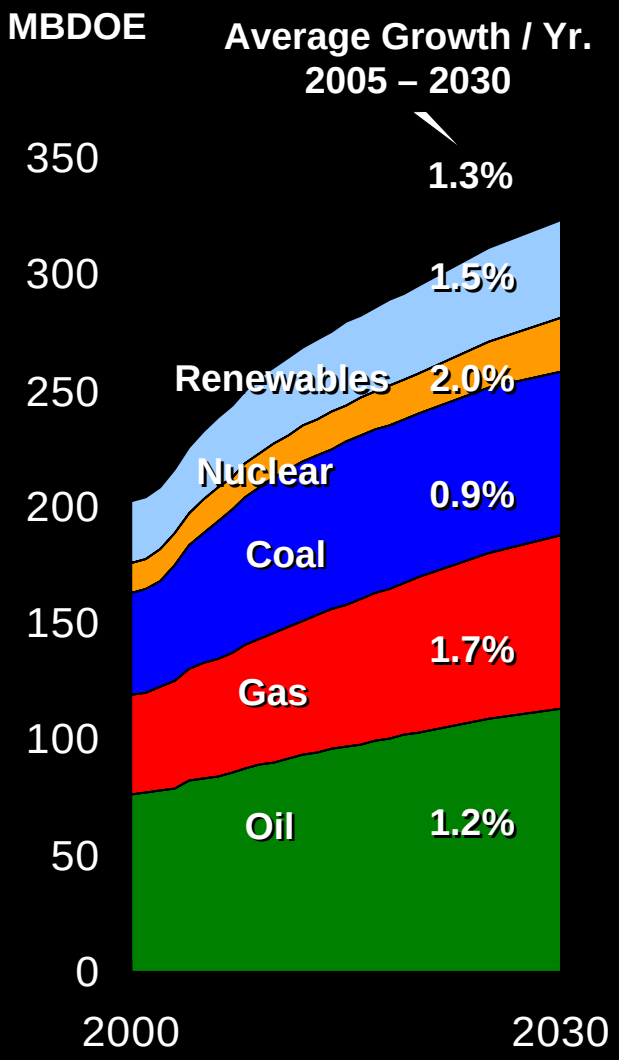
World Energy Demand – Primary Energy Supplies



Primary Energy

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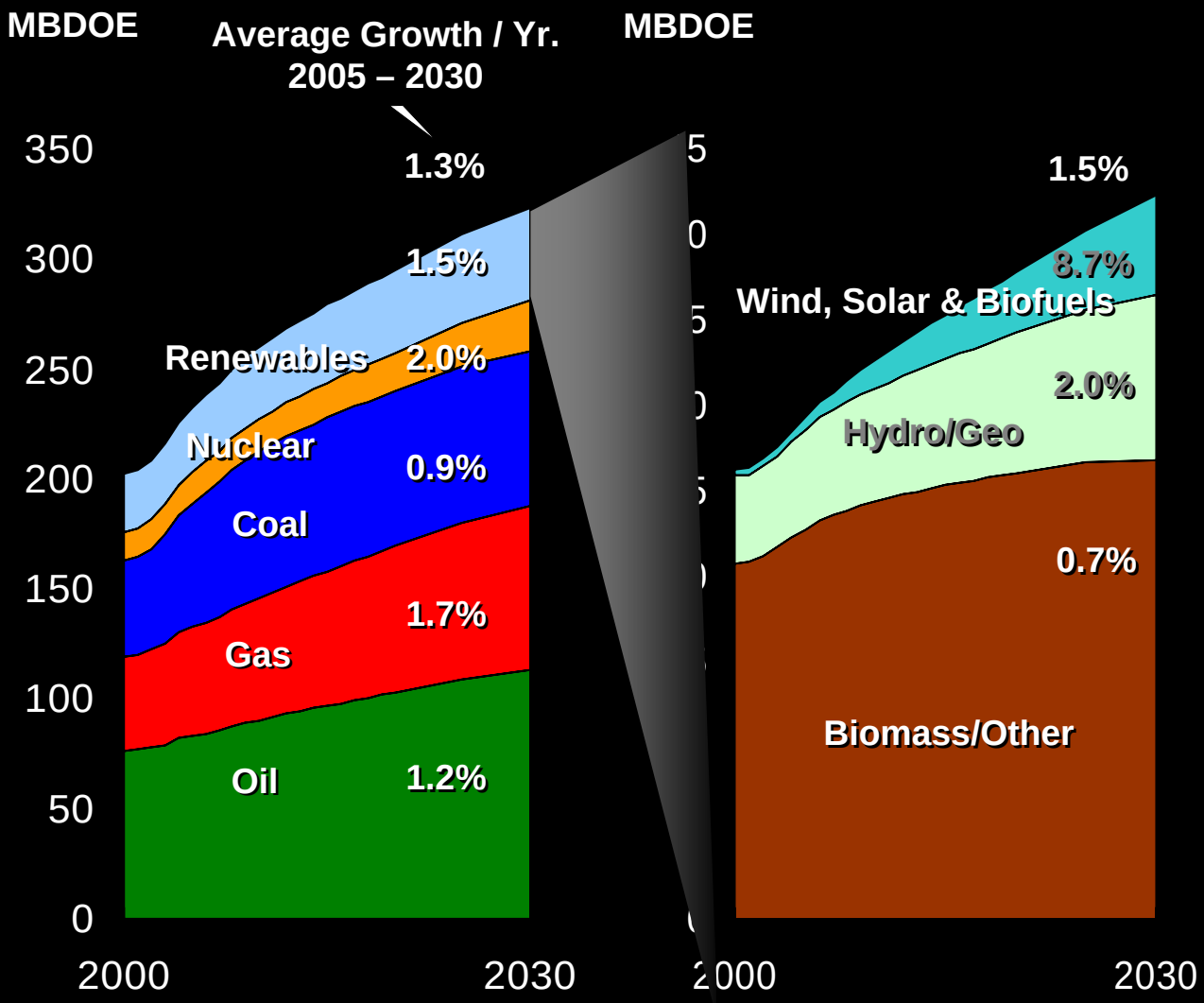
World Energy Demand – Primary Energy Supplies



Primary Energy

Renewables

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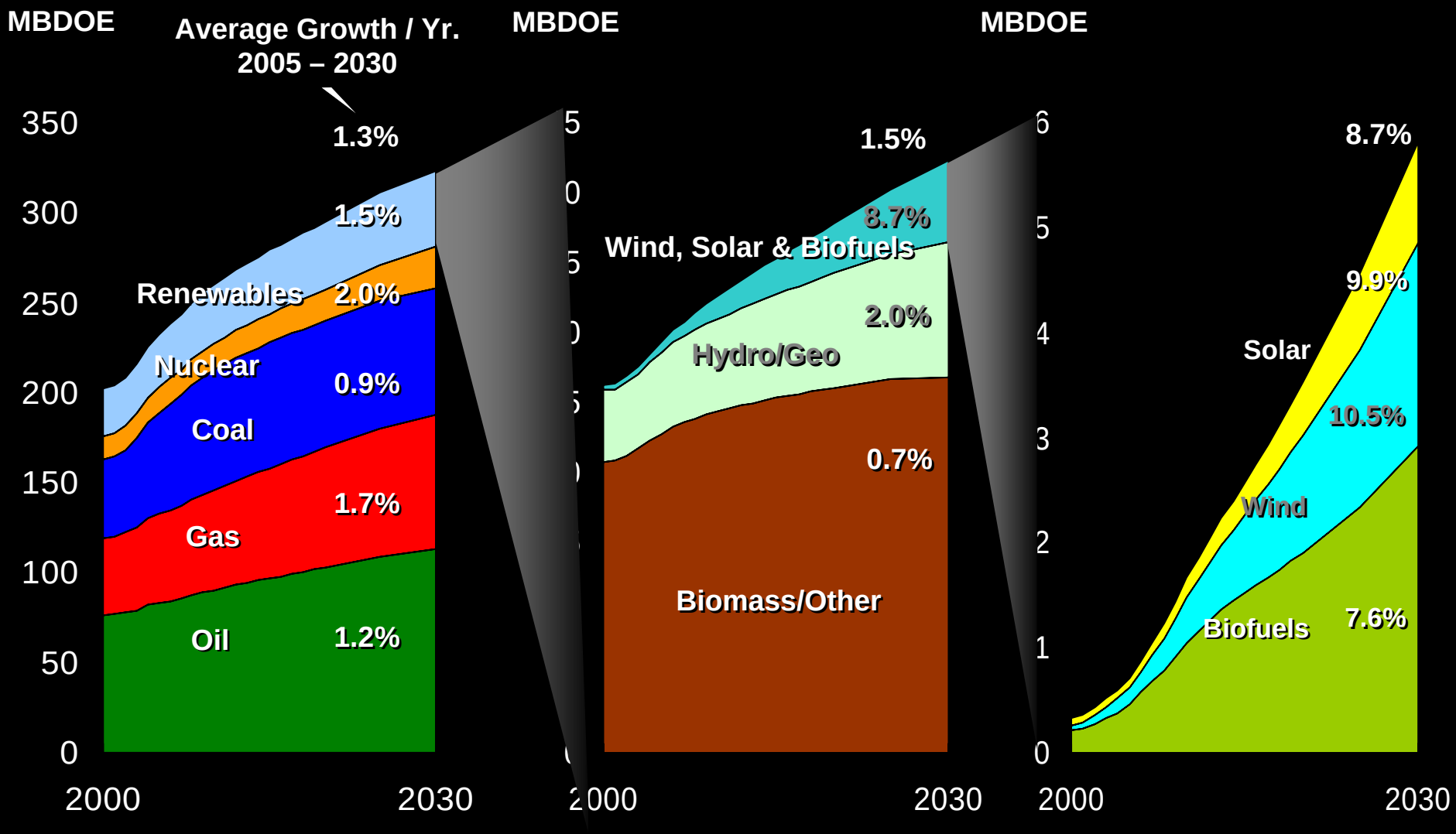
World Energy Demand – Primary Energy Supplies



Primary Energy ***Renewables*** ***Wind, Solar & Biofuels***

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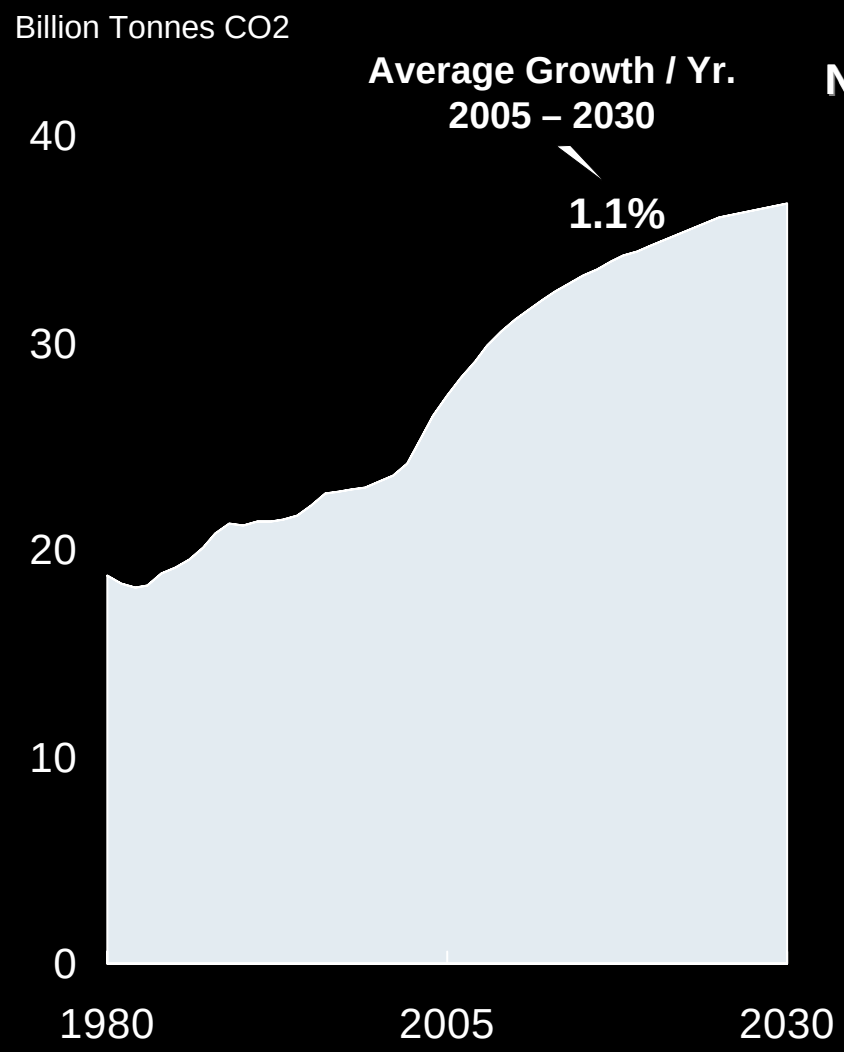
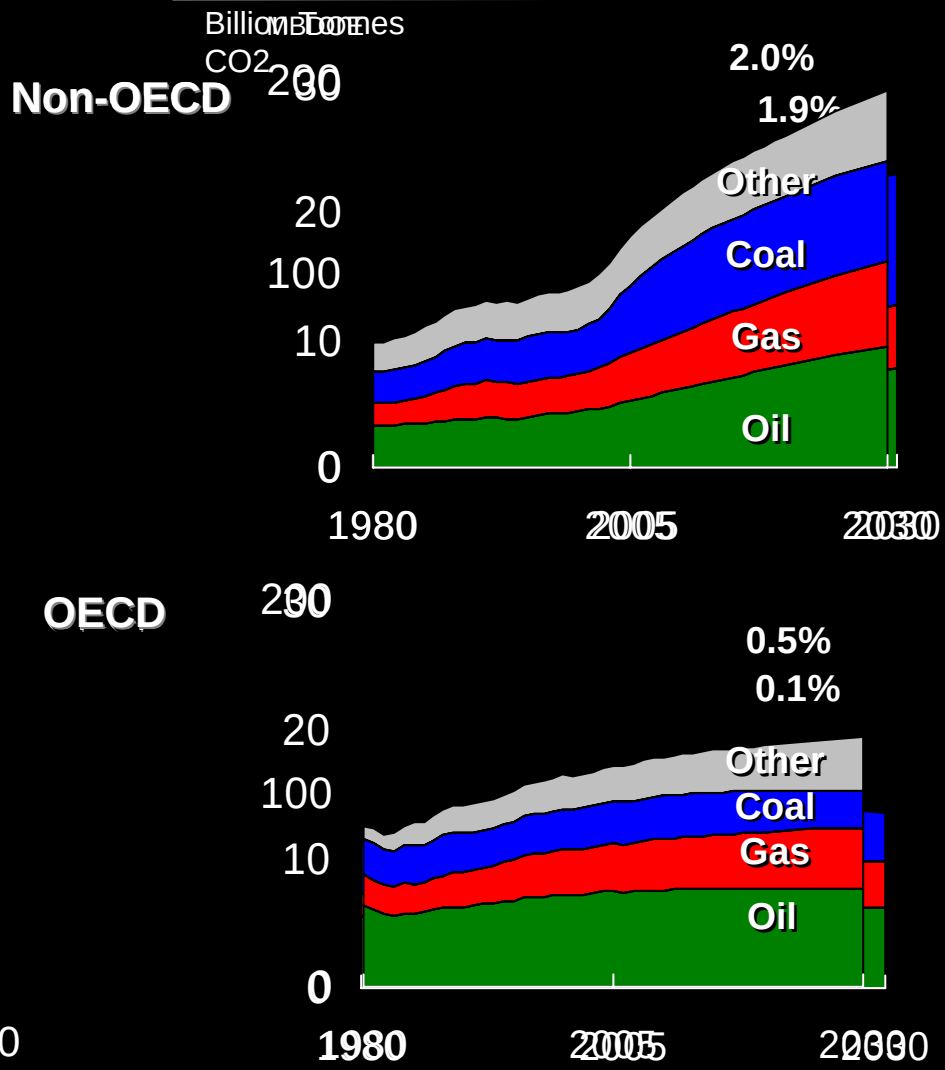
Global CO_2 Emissions

Energy-Related CO_2 Emissions



CO_2 Emissions by Fuel



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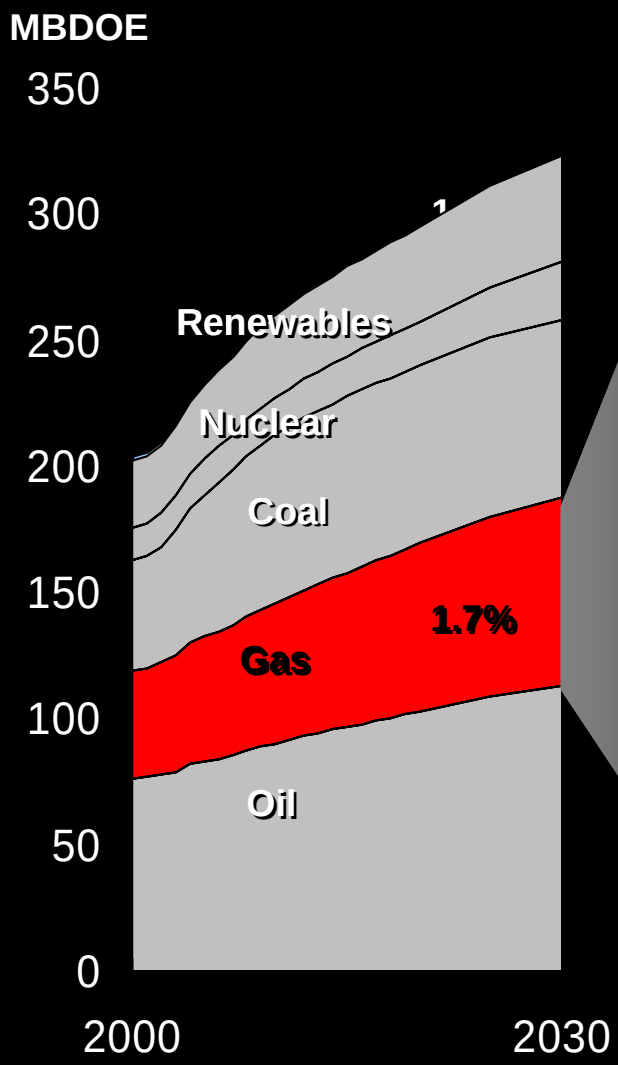
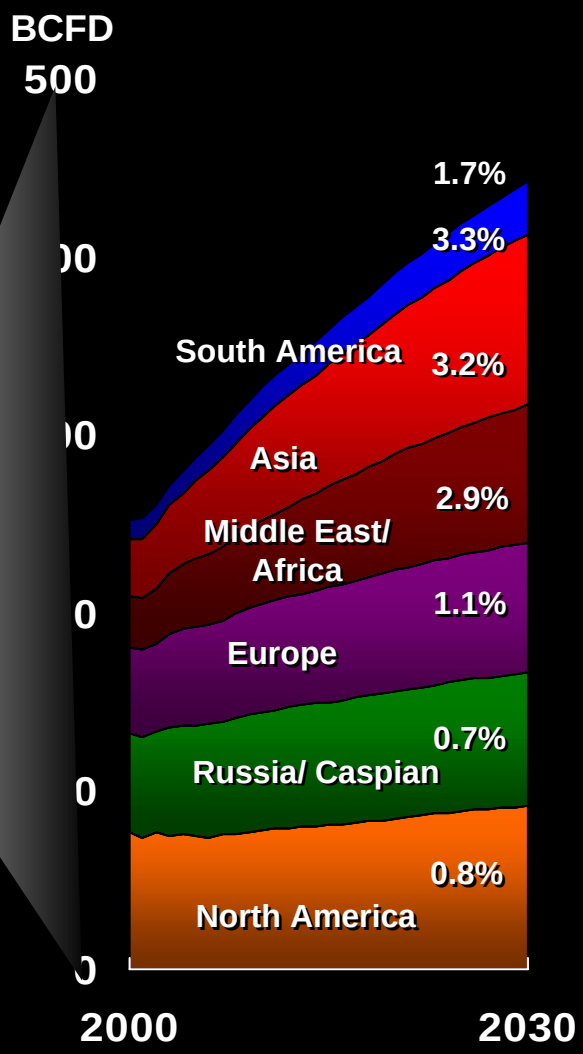
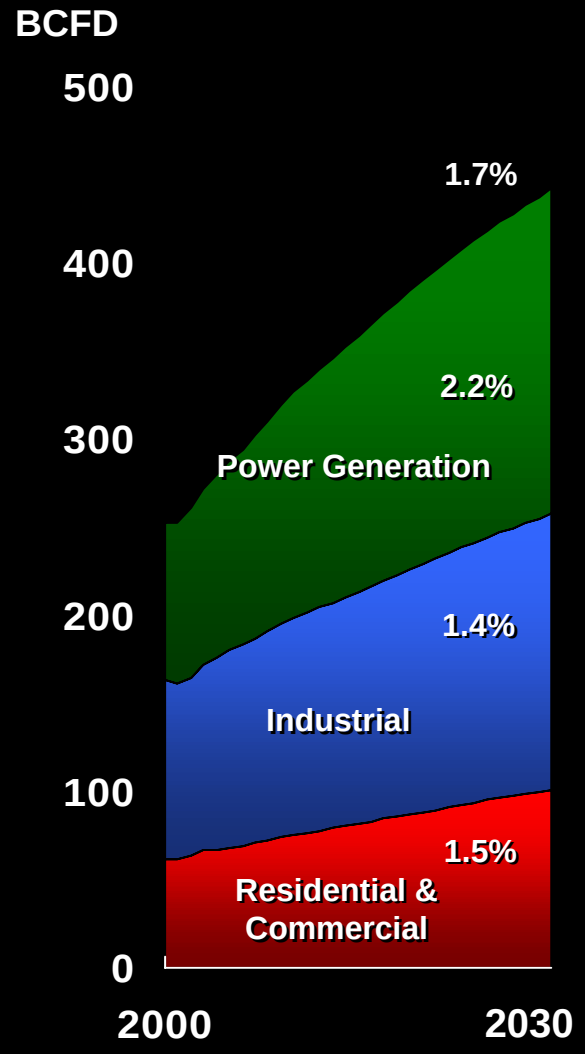
World Gas Demand







Primary Energy

Gas Demand by Region

Gas Demand by Sector

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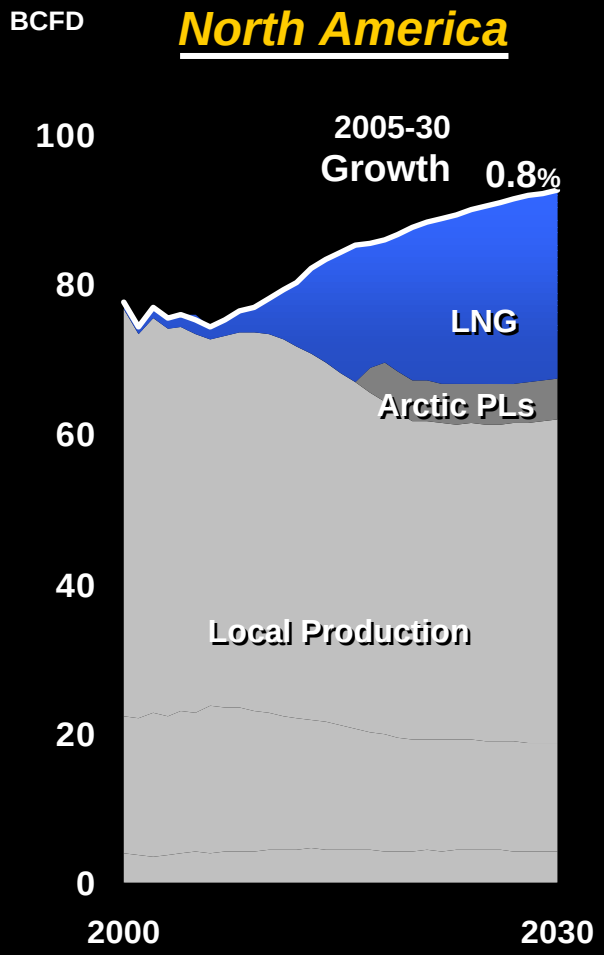
Significant New Imports Needed in All Regions

North America



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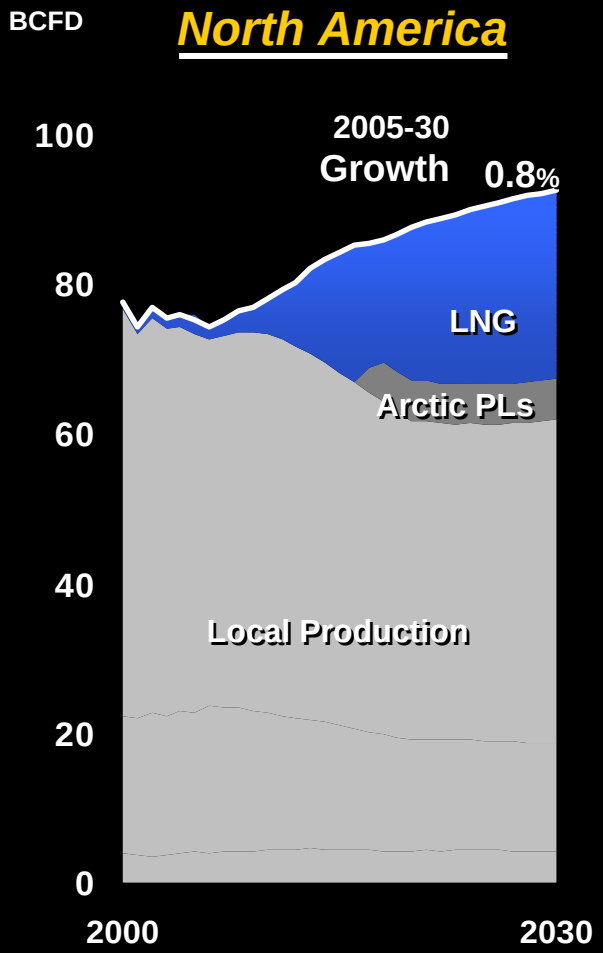
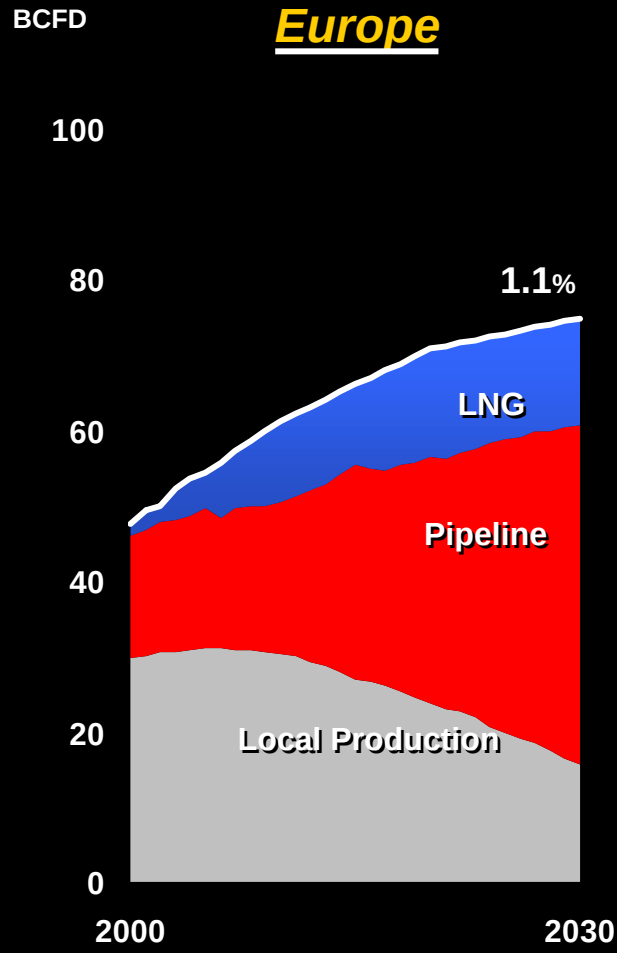
Significant New Imports Needed in All Regions

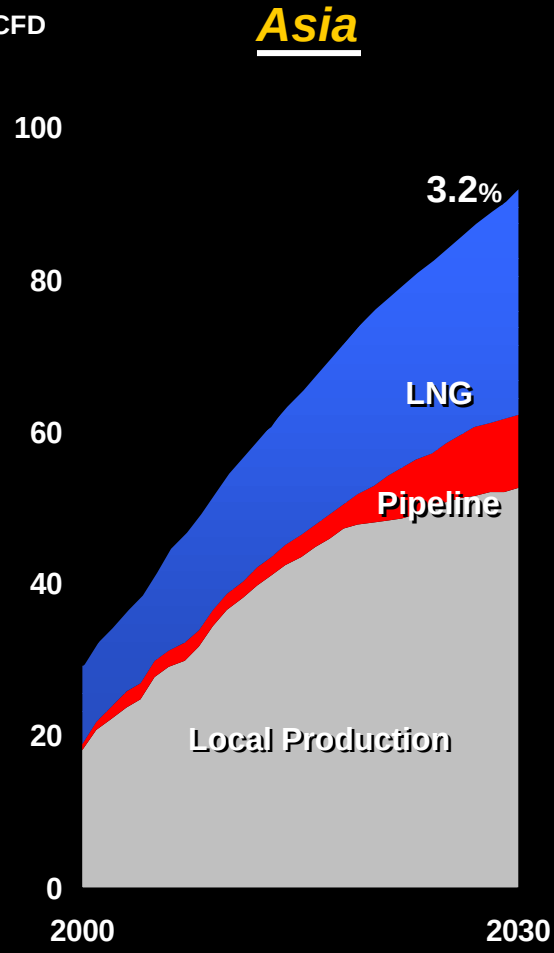
North America



Europe



Asia



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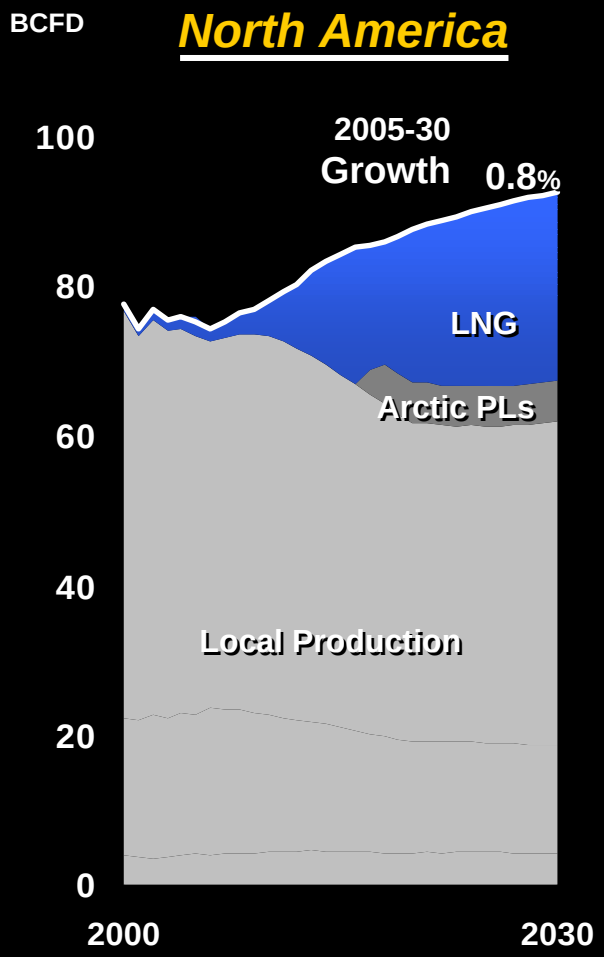
North American Gas Supply Challenges



- Demand increasing with economic growth particularly in power generation
- Non-conventional supplies continue to play a significant role
- Despite high drilling activity, arctic pipelines and import LNG supplies needed
- Growing global competition for LNG supplies

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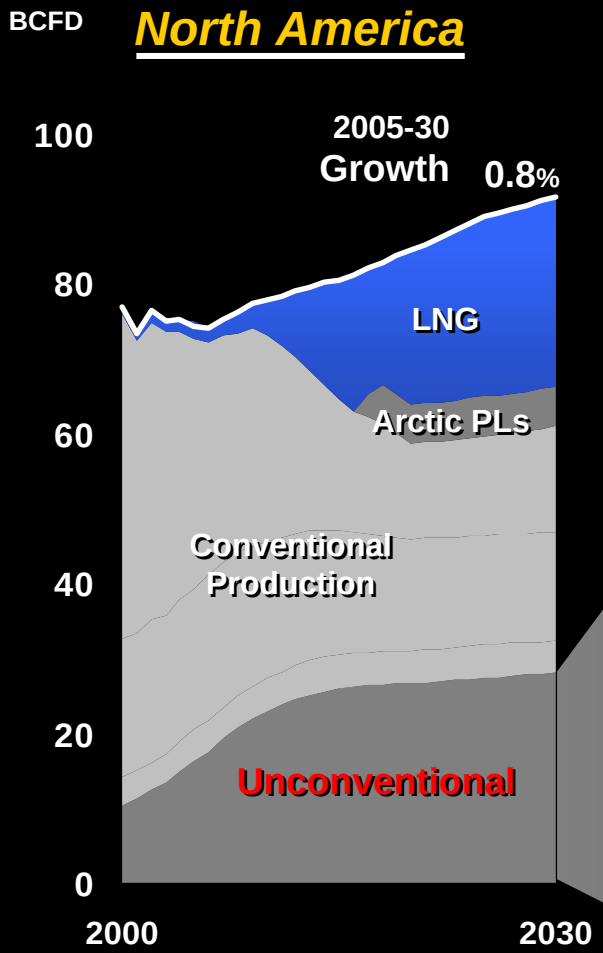
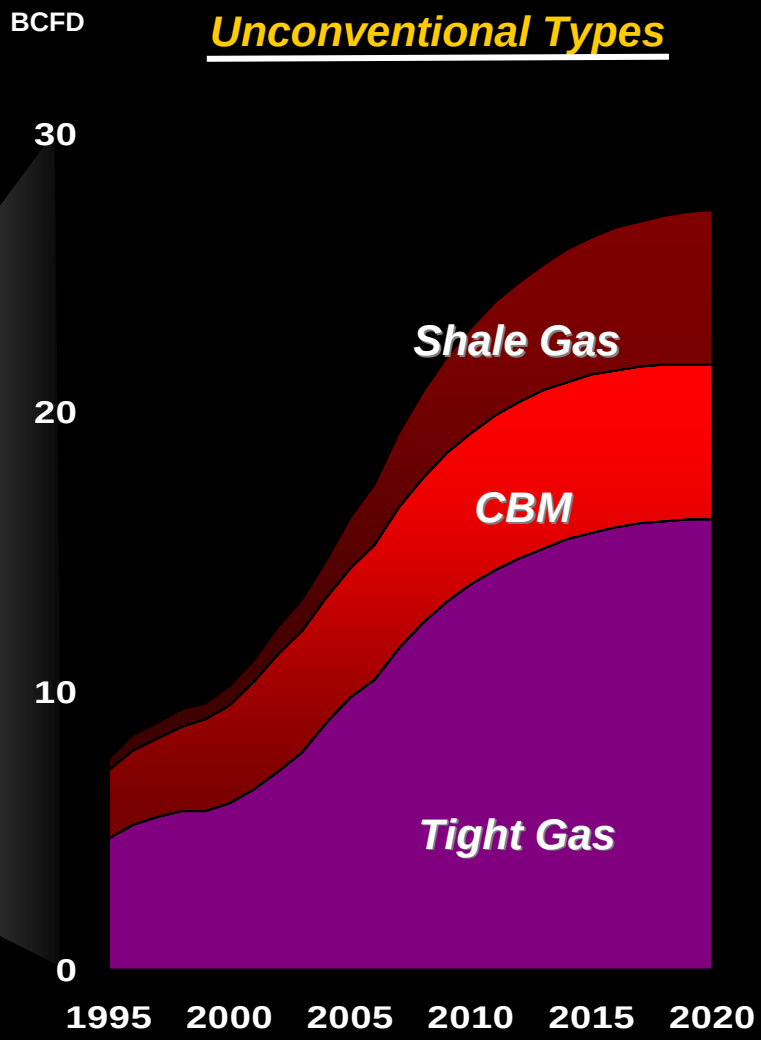
Outlook of Unconventional

North America





Unconventional Types

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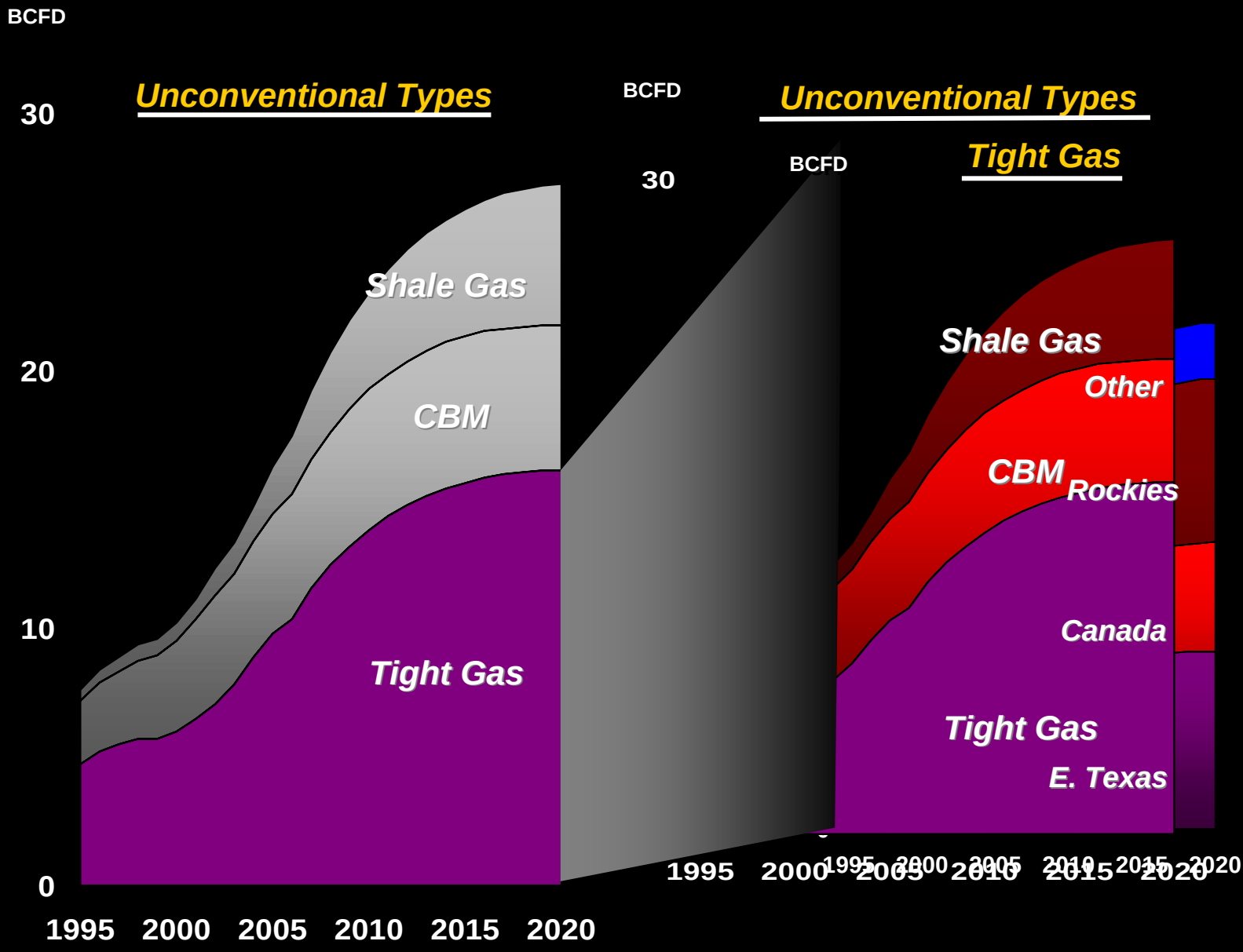
Outlook of Unconventional....Tight Gas



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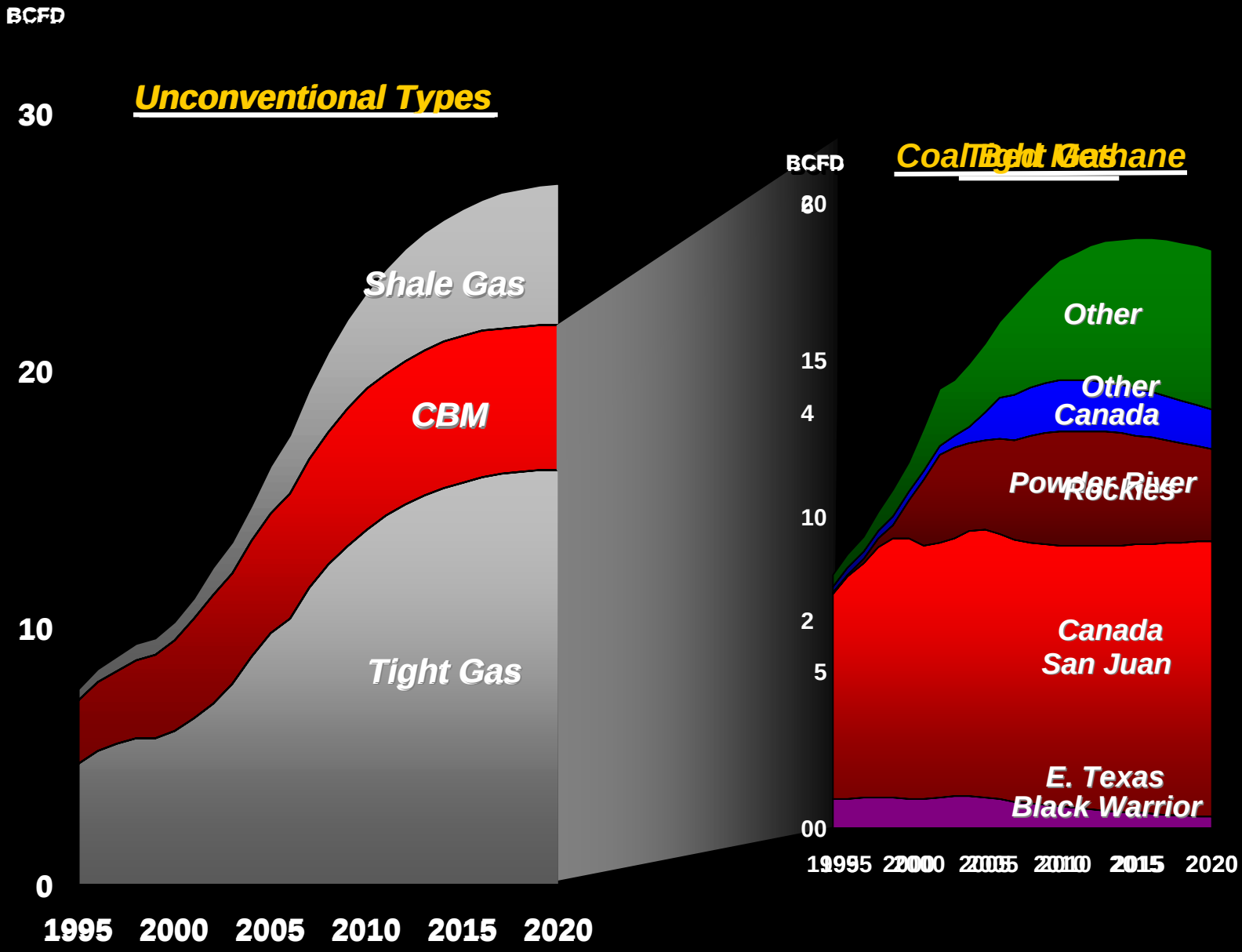
Outlook of Unconventional....CBM



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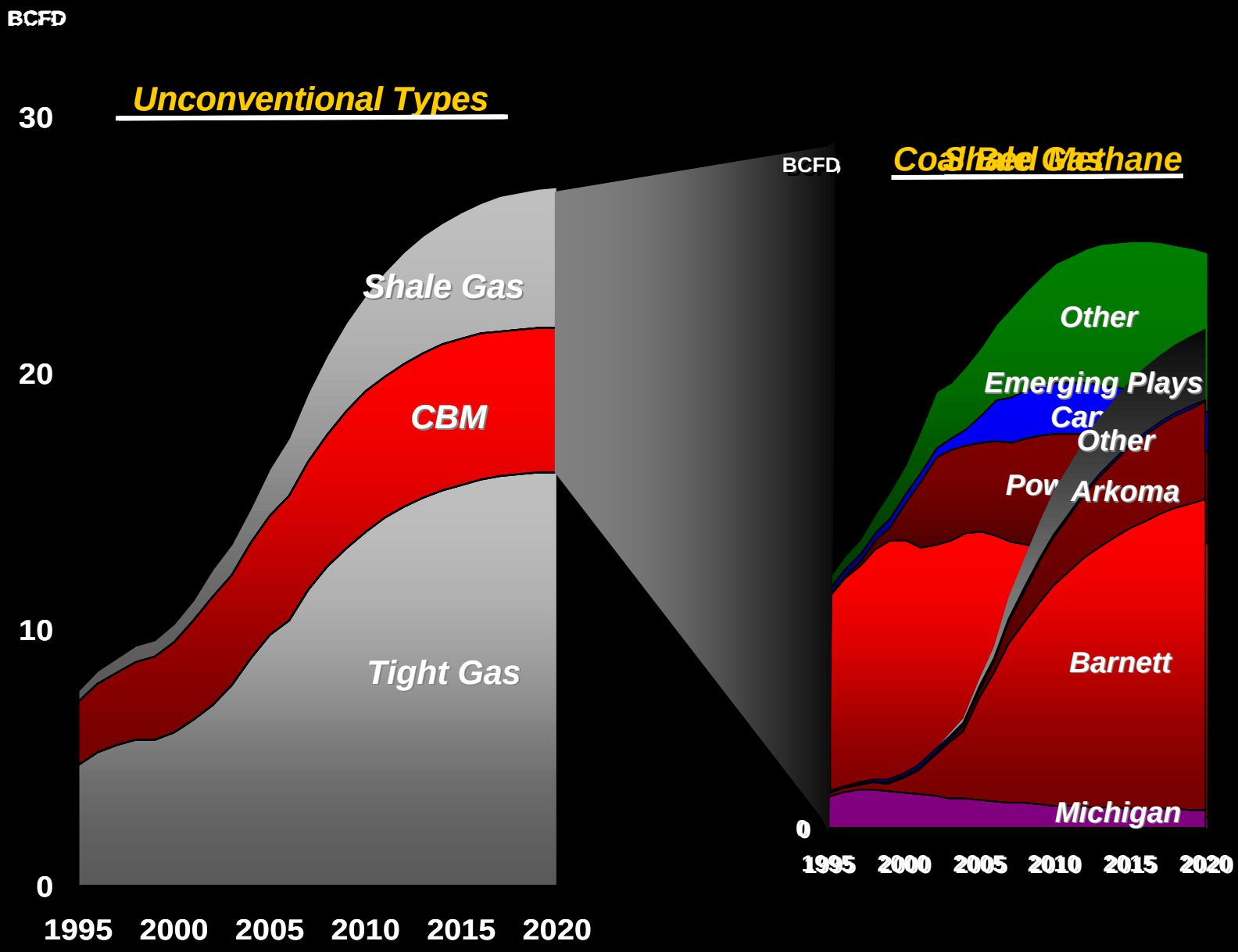
Outlook of Unconventional....Shale Gas



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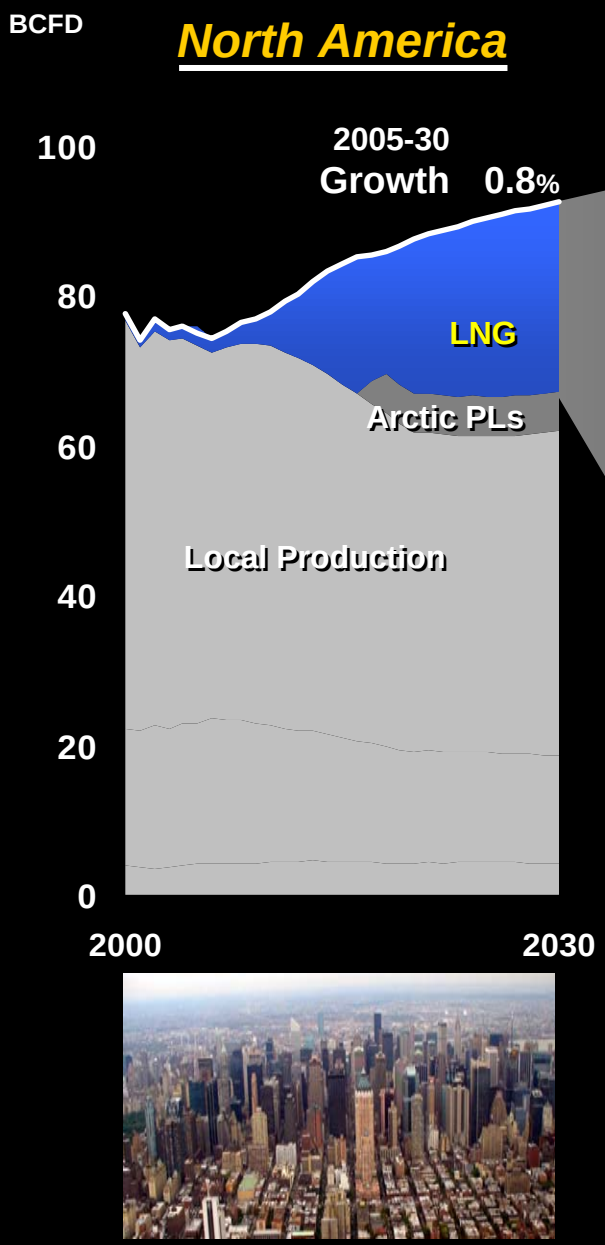
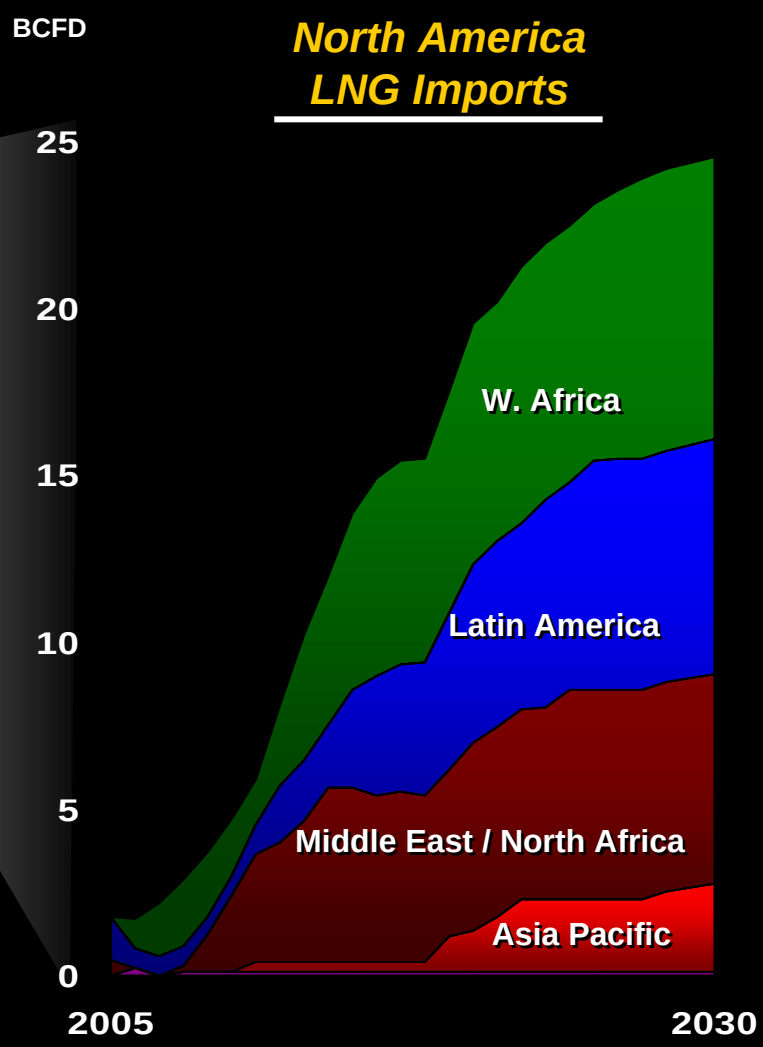
Outlook of LNG





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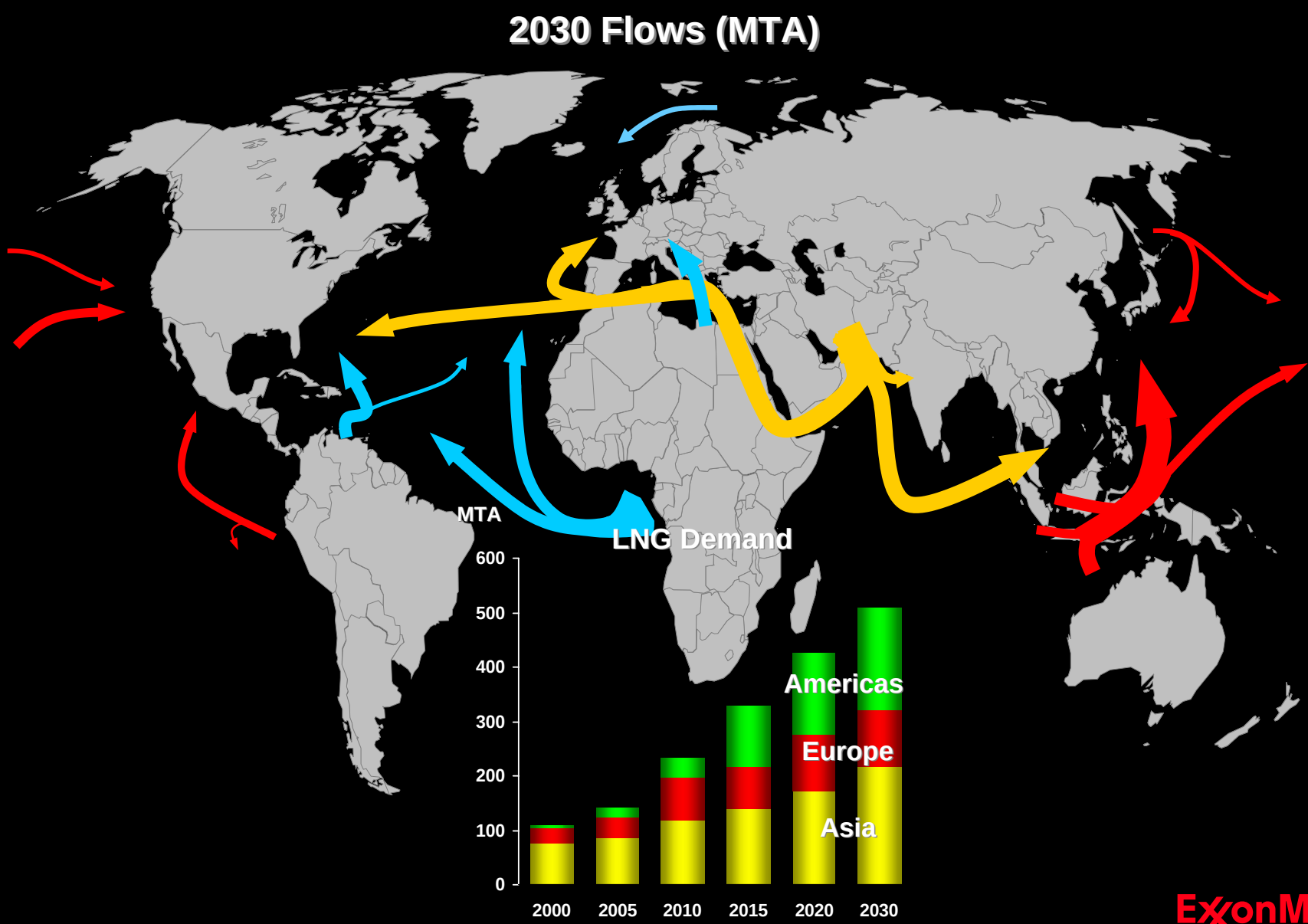
LNG Links Markets Globally



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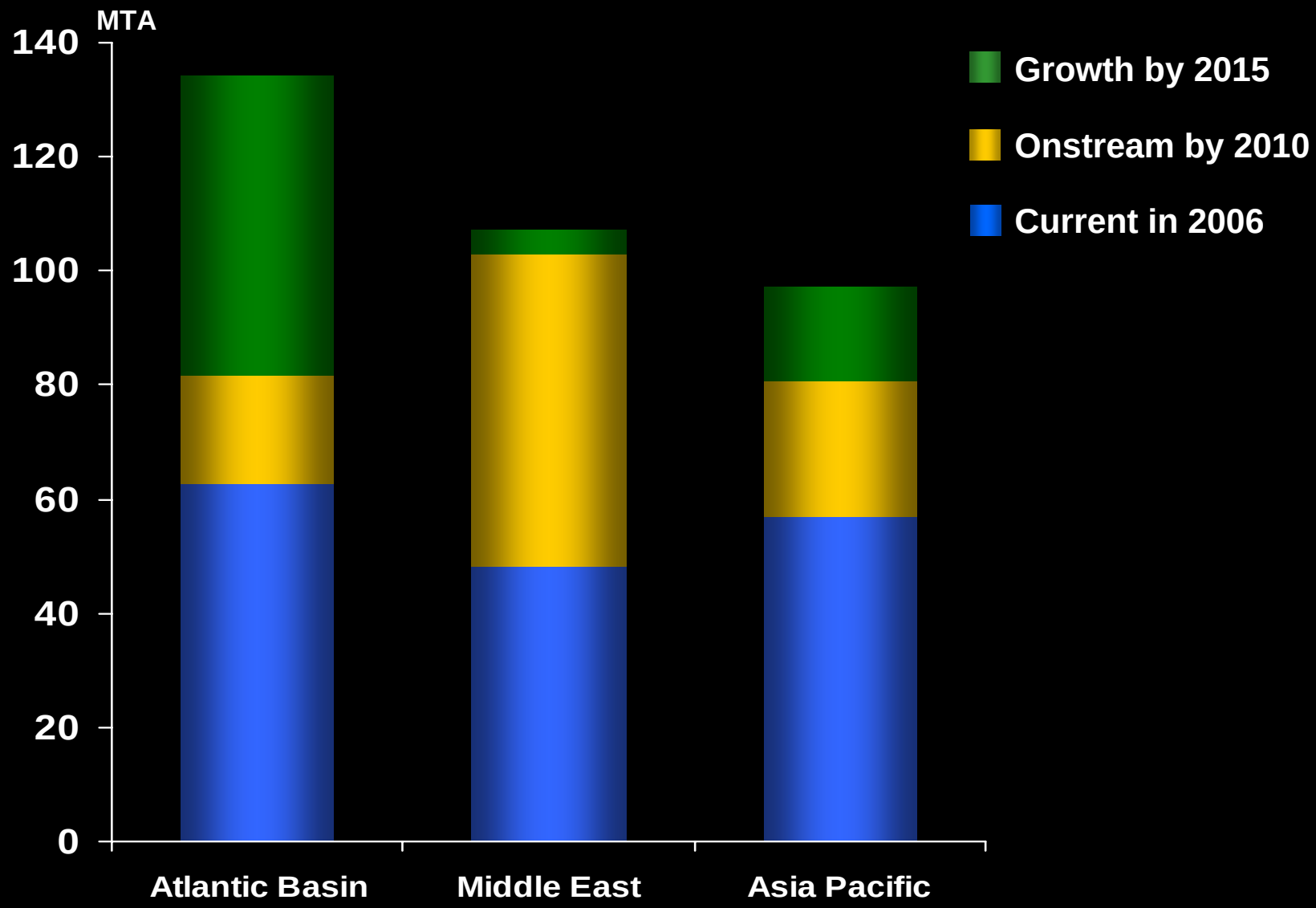
LNG Capacity Outlook



Source: Wood Mackenzie

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Alaska Gas Pipeline

- Ample North America demand for Alaska gas
- Successful Alaska pipeline project requires:
  - Stable regulatory & fiscal regime
  - World class project management experience
  - Support from resource holders
- ExxonMobil ready to work with State and other stake-holders to progress Alaska gas

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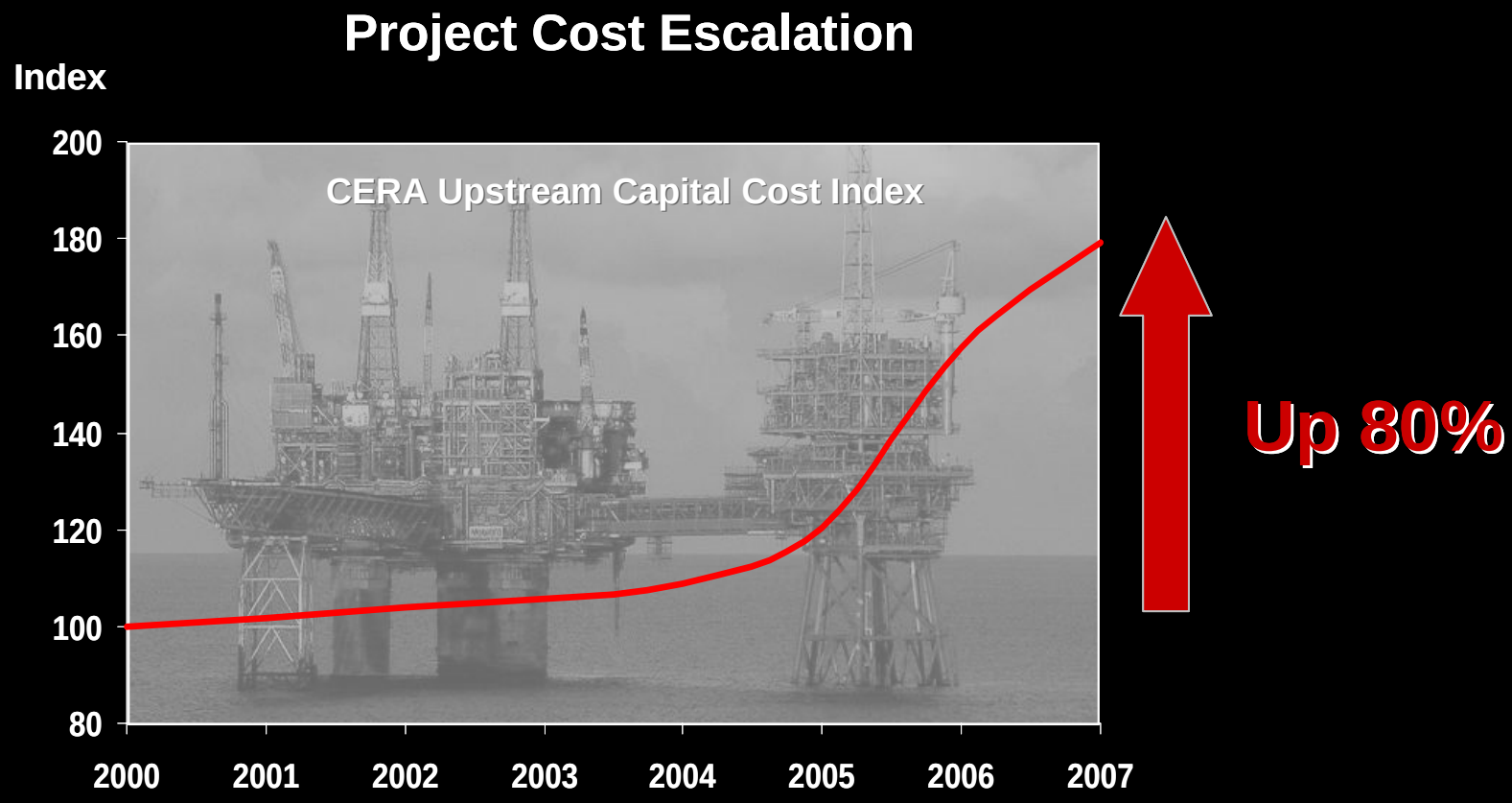
Increasing Development Costs



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Trends in Energy Policy

- All projects facing challenges in high-cost environment
- Volatile fiscal regimes creating uncertainty
- Unilateral changes sought to existing contracts
- Project viability and timing threatened
- Balanced policies and cooperation key to success

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Summary

- Substantial increase in worldwide gas demand expected by 2030
- Natural Gas will play a significant role meeting US energy supply and achieving environmental goals
- Despite strong growth in renewables, demand growth will lead to increased CO2 emissions
- New sources of gas, including unconventional gas, LNG, and Arctic gas, will all have a role in meeting future needs
- The shifting geography of North America gas supplies will continue to create demand for new infrastructure
- Capital intensive, long time horizon projects need stable regulatory & fiscal regimes, world class project management and close cooperation to succeed

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BACKUP

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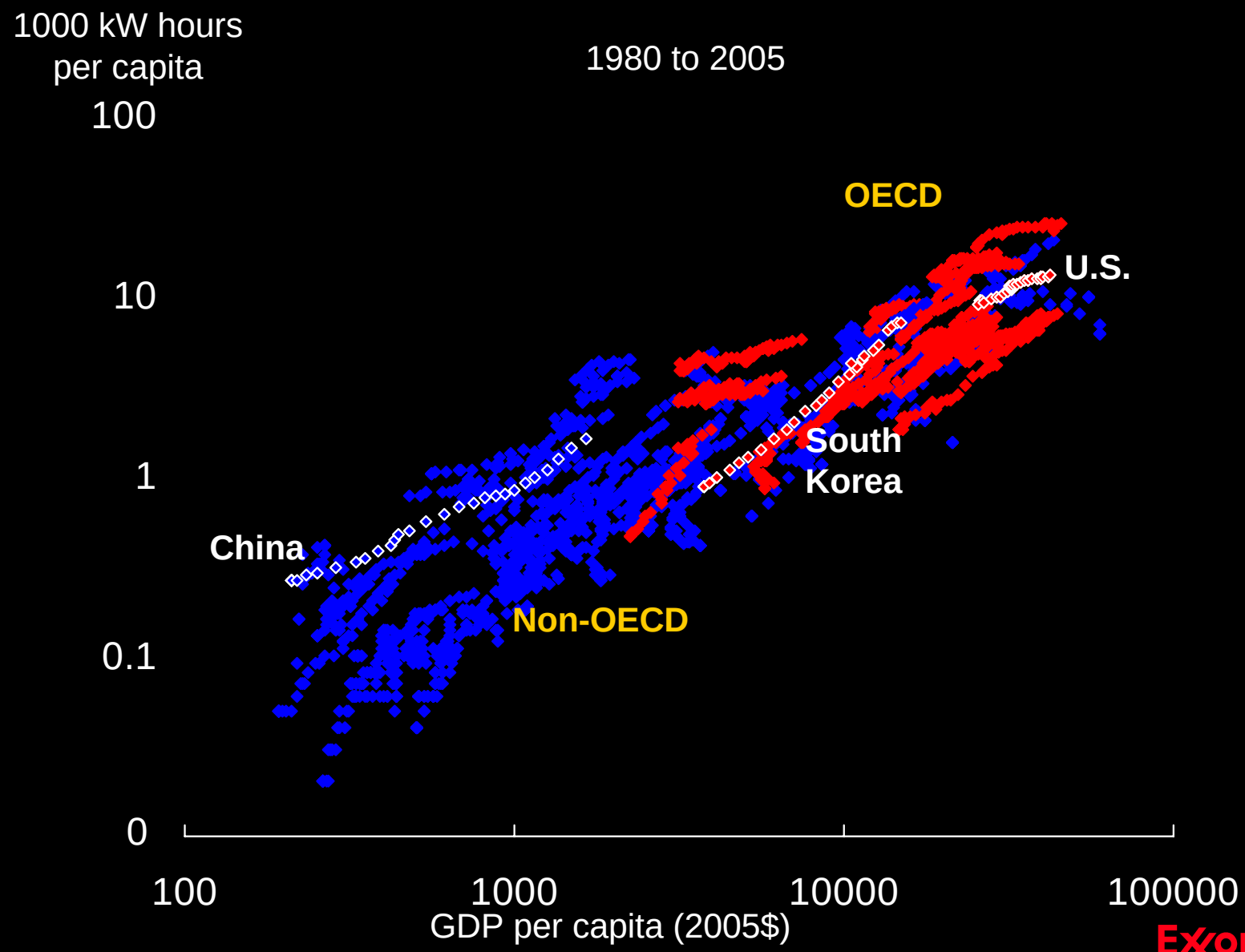
Electricity Demand Linked to GDP



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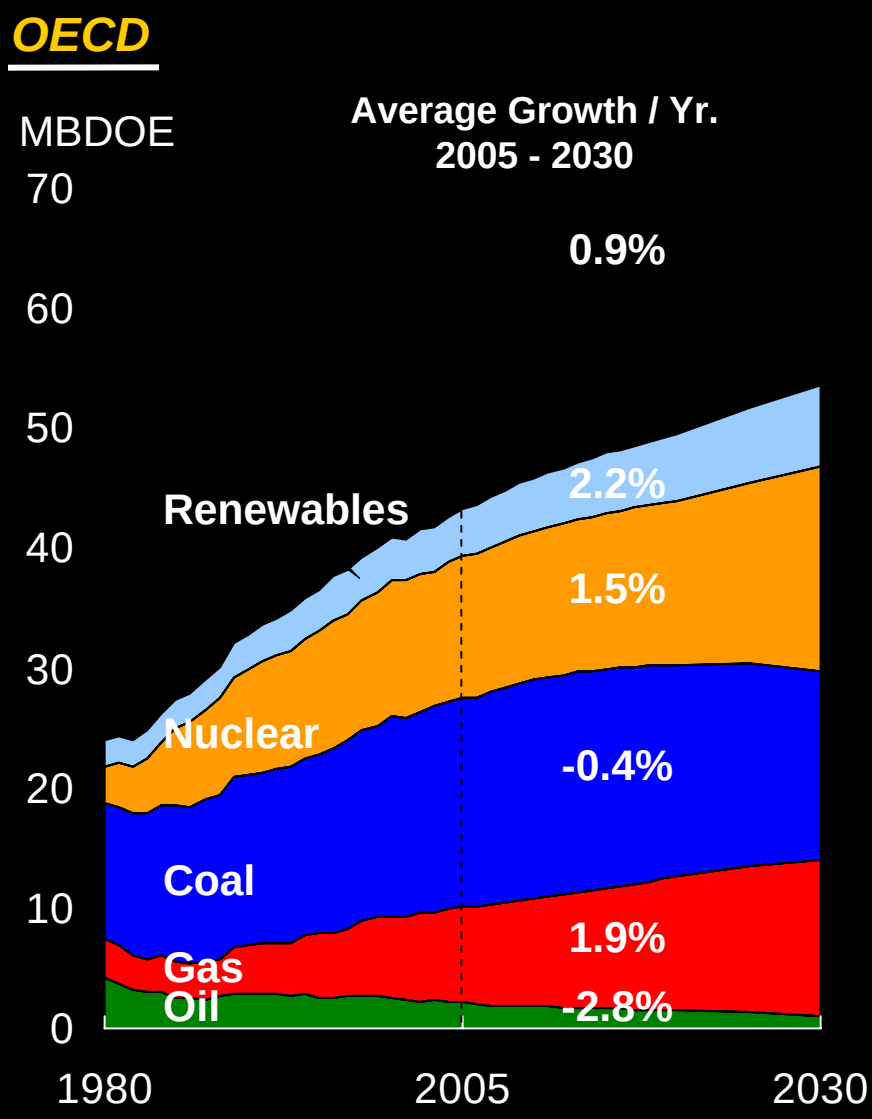
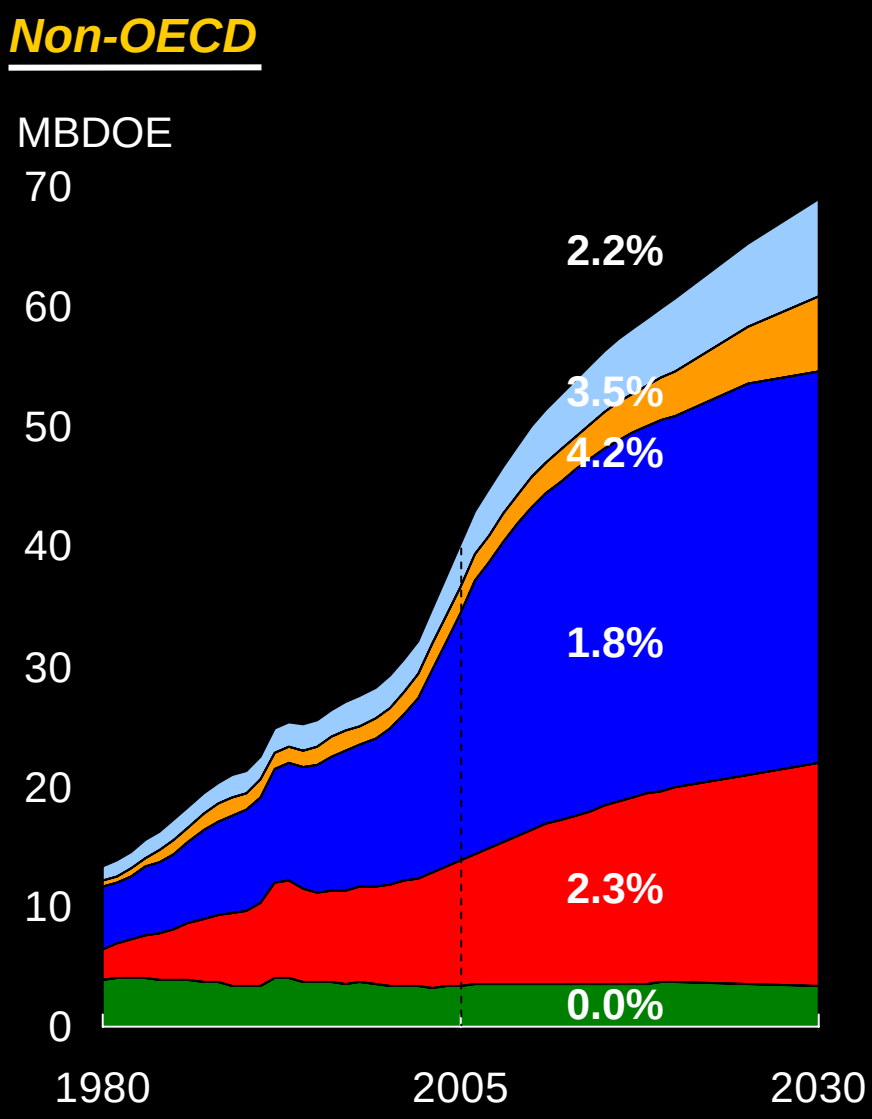
Power Generation Demand





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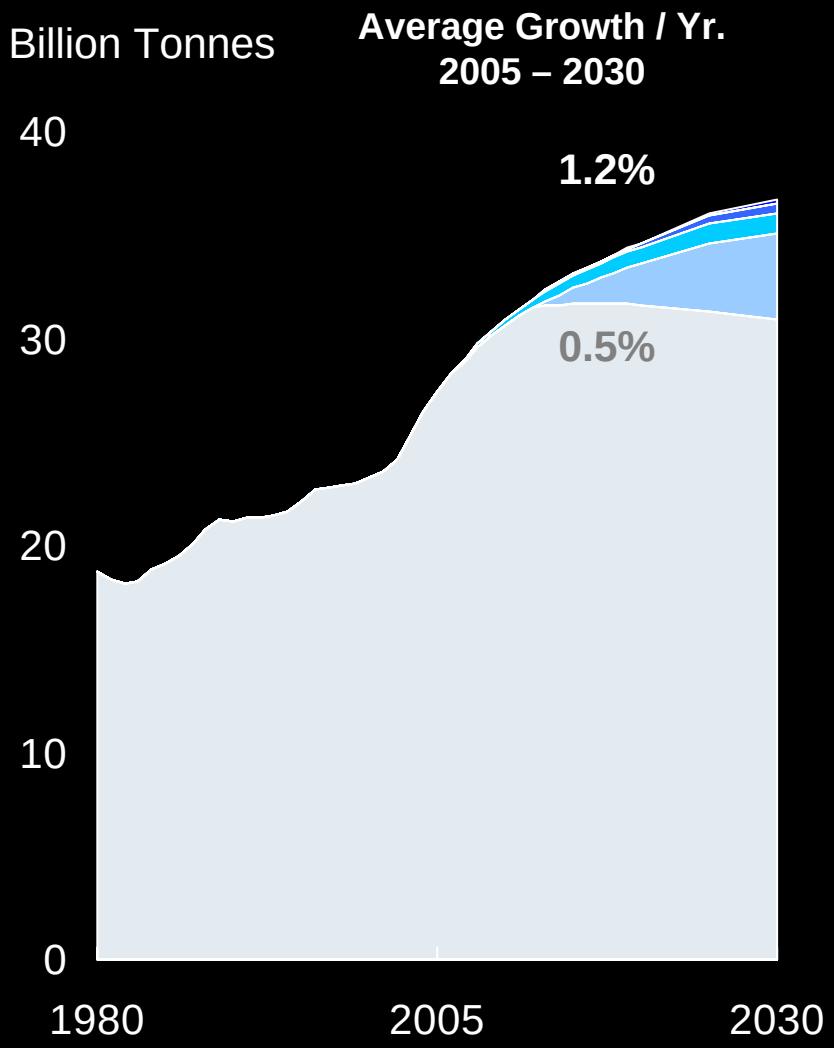
Global CO_2 Emissions

Energy Related CO_2 Emissions



Sensitivities

- Double biofuels growth through cellulosic ethanol
- Double rate of improvement of new car efficiency
- Replace ½ of coal growth with nuclear / CCS
- Retire coal plants at 40 years and replace with nuclear / CCS

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ExxonMobil Climate Change Perspective

- There is increasing evidence that the earth's climate has warmed on average about 0.7c in the last century
  - Many global ecosystems, especially the polar areas, are showing signs of warming
  - CO2 emissions have increased during this same time period and emissions from fossil fuels and land use changes are one source of these CO2 emissions

- Climate remains an extraordinary complex area of scientific study
  - The risk to society and ecosystems from increases in CO2 emissions could prove to be significant so despite the areas of uncertainty that do exist it is prudent to:
  - Develop and implement strategies that address the risks
  - Keeping in mind the central importance of energy to the economies of the world

Climate Change Policy Design Principles

- Ensure any cost of carbon is uniform across the economy and predictable
- Maximize the use of markets
- Minimize complexity to reduce administrative costs
- Maximize transparency to companies and consumers
- Promote global participation
- Consider priorities of developing world
- Recognize impacts of imbalances among national policies
- Adjust in the future to developments in climate science and the economic impacts of climate policies