THE PRODUCER CONSUMER DIALOGUE: INSIGHTS INTO THE CONVERSATION

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1. **The producer-consumer dialogue**

2. **Assumptions**

3. **Possible futures**

4. **Current adjustments**
   - Natural gas in Asia

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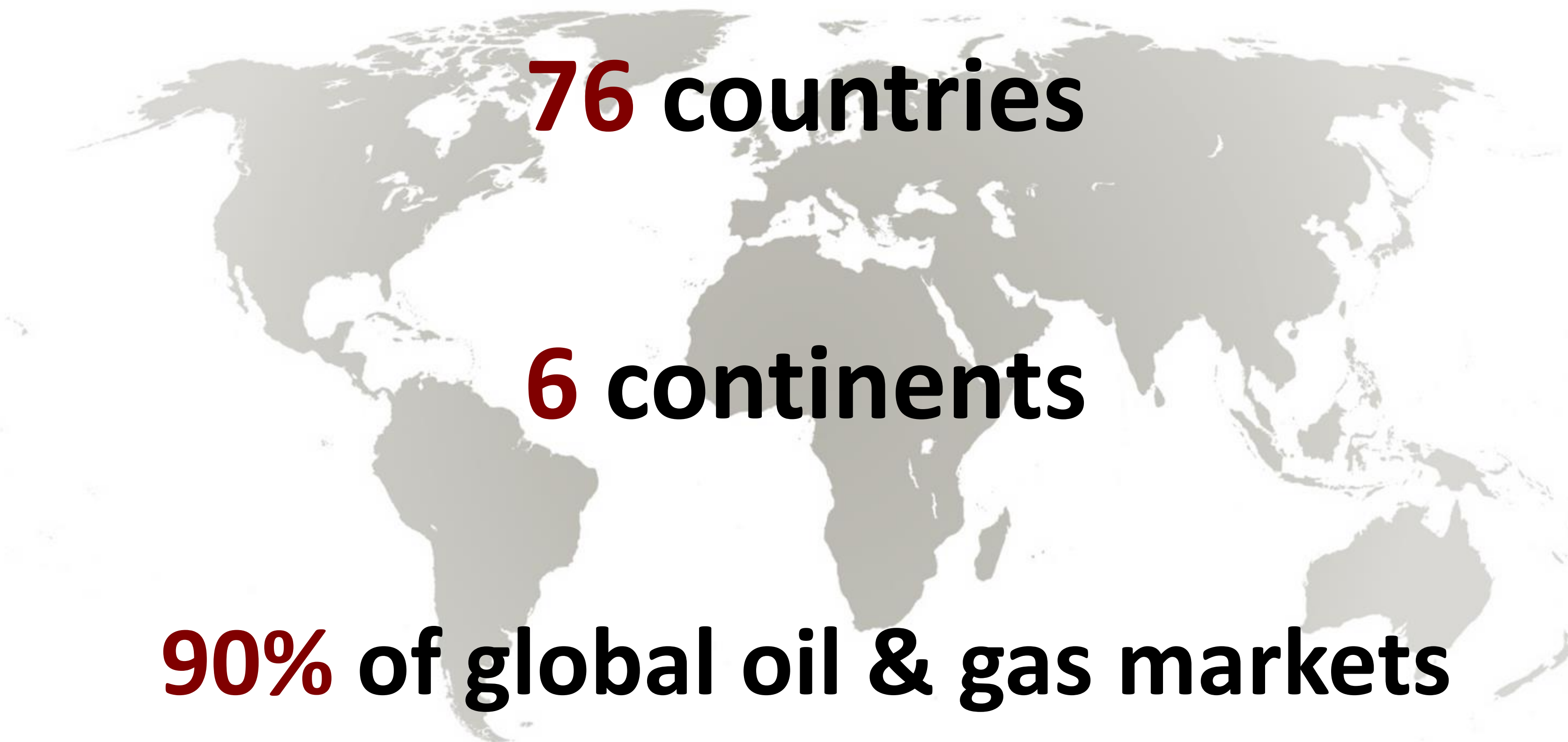
The IEF membership: neutrality means inclusion



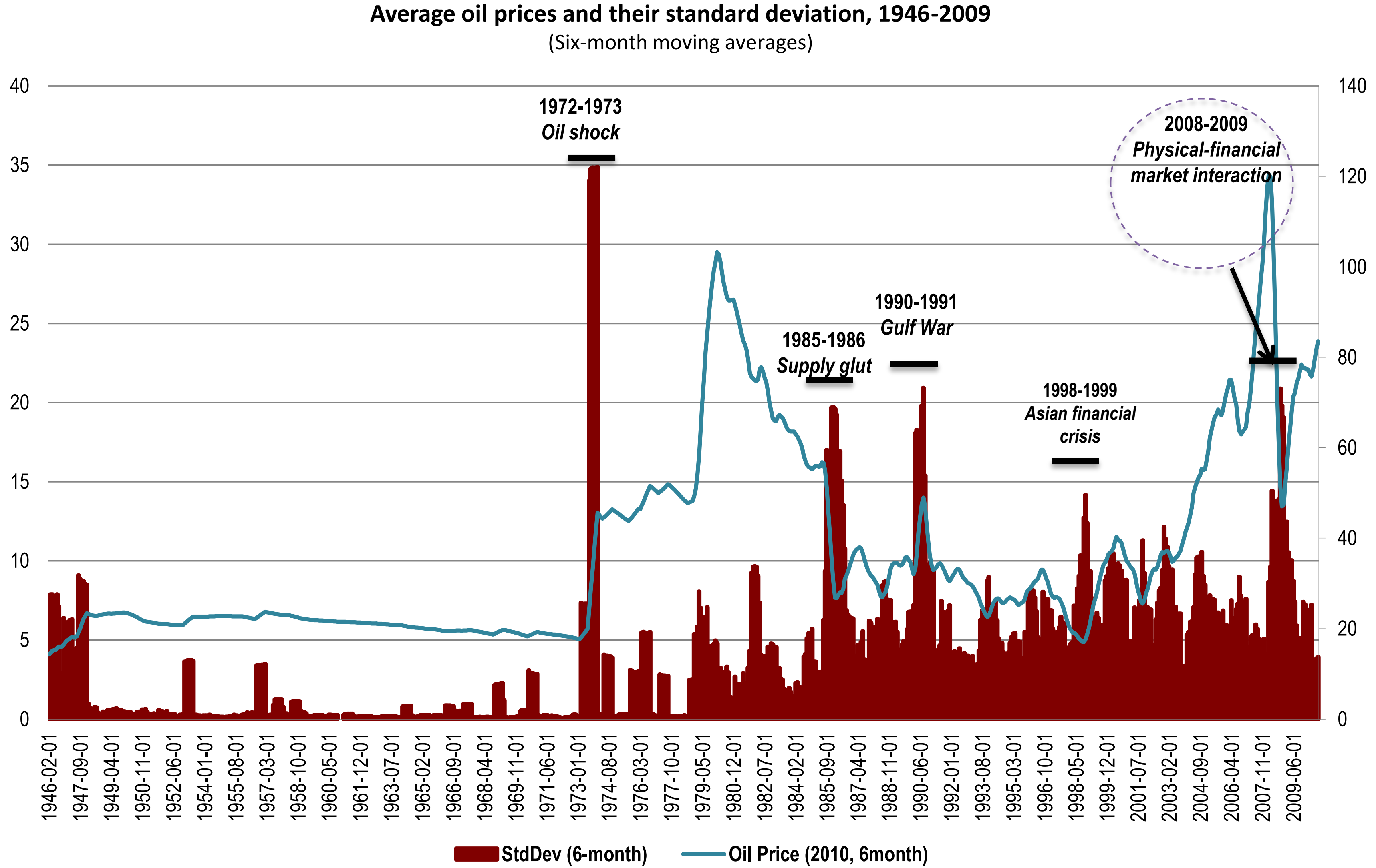
76 countries

6 continents

90% of global oil & gas markets

An **Industry Advisory Committee** of global oil and gas companies participates in the IEF

Volatility is a key driver of the energy dialogue



Recent focus of the energy dialogue

1. Comparative analysis of **energy outlooks**

1. Promotion of **market data transparency (JODI)**

1. Analysis of the interaction between **physical and financial markets**

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	Known	Unknown
Known		
Unknown		

	Known	Unknown
Known	**What we know**	**What we know we don’t know**
Unknown	**What we *think* we know**	**What we don’t know and cannot aspire to know in advance**

	Known	Unknown
Known	• **Sufficient oil and gas reserves** to meet demand • **Demand is not where supply is found** –for the most part	
Unknown		

	Known	Unknown
Known		
Unknown	• **Asia's energy demand** will continue to grow faster than the rest of the world's demand • **OECD energy demand** remains flat • **Germany** is not going back to **nuclear** and **Japan** is going back, but not completely • **North American oil and gas** output is **profitable** and **safe** for the environment	

	Known	Unknown
Known		• **Government policy** ○ Energy efficiency ○ Environment • **Technological change** ○ Transportation ○ Power generation • **Geopolitical developments**
Unknown		

	Known	Unknown
Known		
Unknown		

	Known	Unknown

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	• **Demand is not where supply is found** –for the most part
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		• **Geopolitical developments**

Unknown	• **Asia's energy demand** will continue to grow faster than the rest of the world's demand • **OECD energy demand** remains flat • **Germany** is not going back to **nuclear** and **Japan** is going back, but not completely • **North American oil and gas** output is **profitabl**e and **safe** for the environment	

Are you sure?

Why?

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In a nutshell, the <u>new</u> action is about:

Asian demand

And

unconventional oil and gas supply

…and trade

Table 9. Long-term Scenario Key Assumptions

IEA WEO Scenarios	OPEC WOO Scenarios
Current Policies Scenario Only considers policies that have been enacted as of mid-2013	**Reference Case** Only considers policies that have been enacted
New Policies Scenario Considers both policies in place and commitments announced	**Higher Economic Growth Scenario (HEG)** Assumes higher economic growth rate than the Reference Case
450 Scenario Assumes policies to be taken to limit the concentration of GHG in the atmosphere to 450 ppm of CO2 equivalent	**Lower Economic Growth Scenario (LEG)** Assumes lower economic growth rate than the Reference Case
	Upside Supply Scenario (UPS) Looks at possibility of higher non-OPEC supply than the Reference Case

Focus is now **outside the OECD**

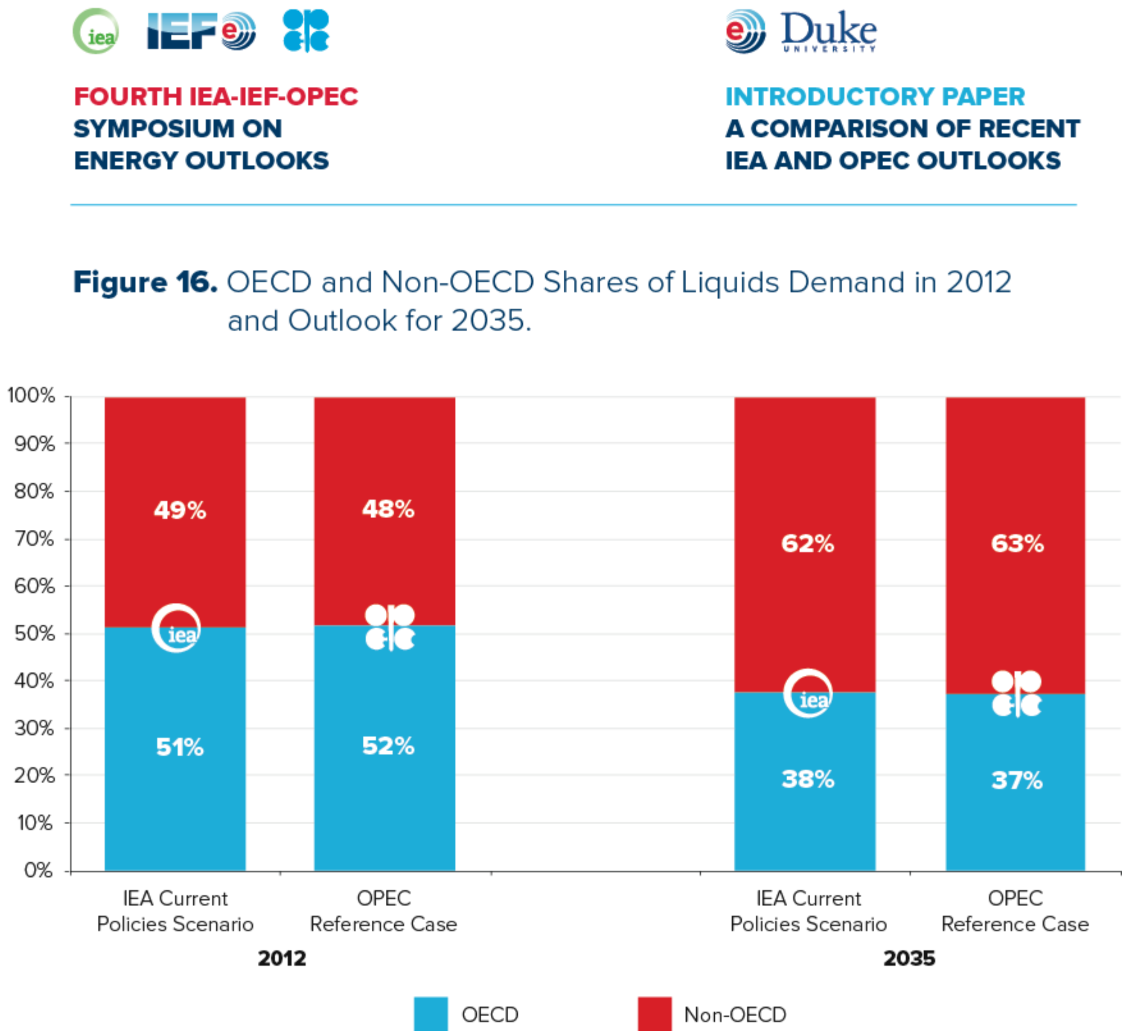
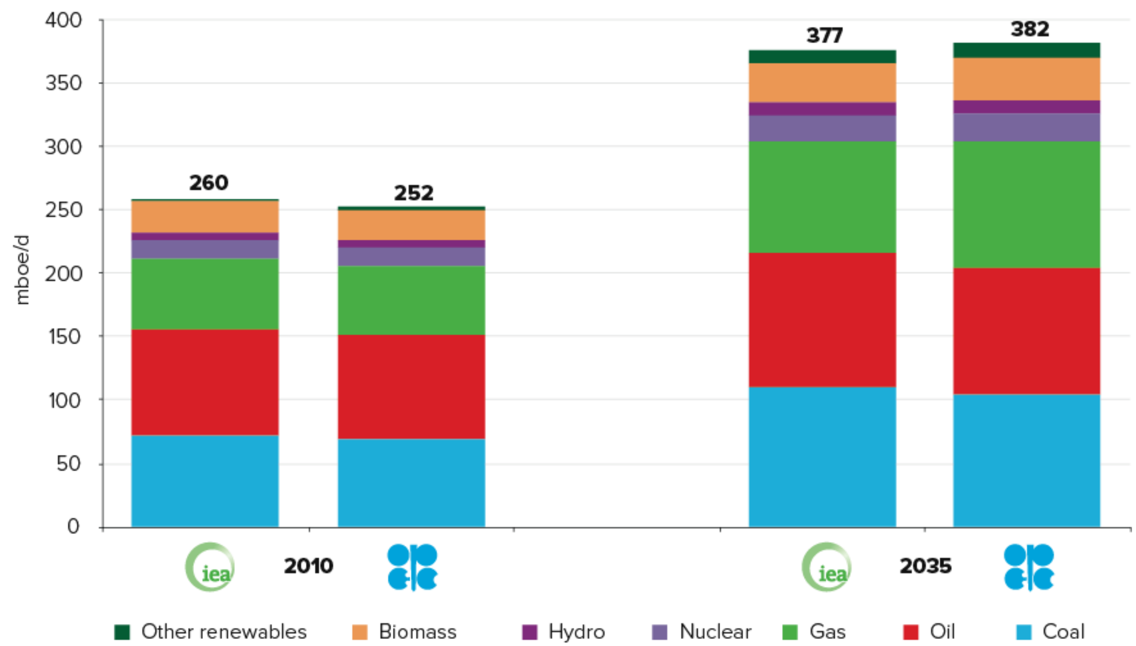


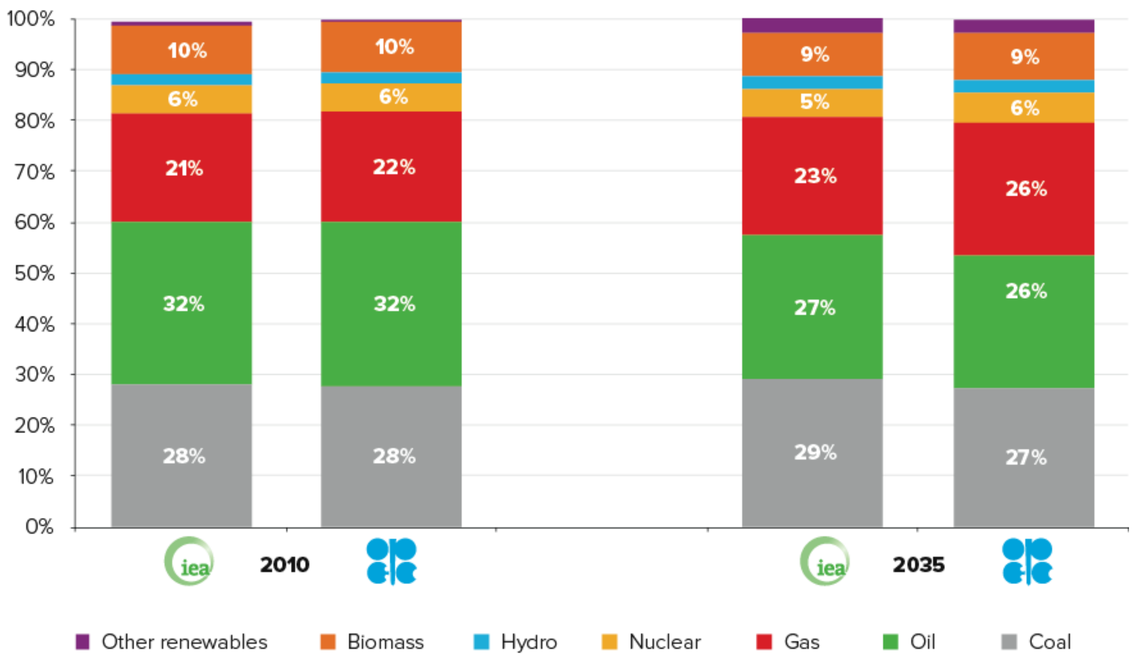
Figure 14. World Primary Energy in 2010 and Outlook for 2035



FOURTH IEA-IEF-OPEC SYMPOSIUM ON ENERGY OUTLOOKS

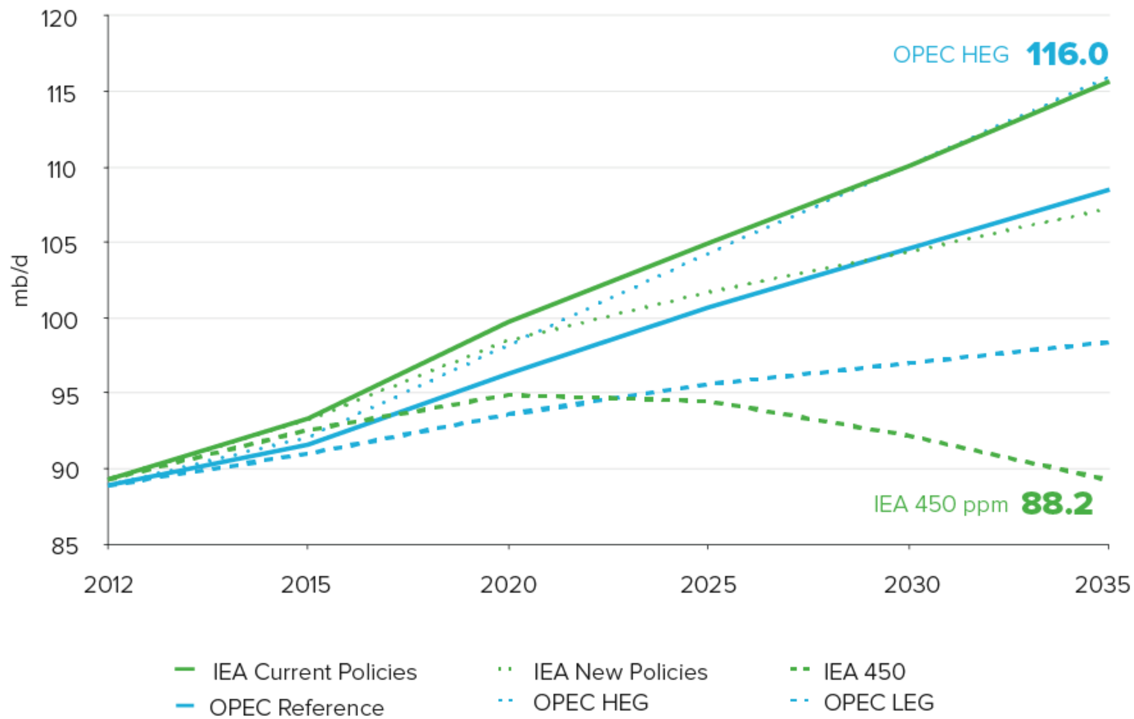
INTRODUCTORY PAPER
A COMPARISON OF RECENT IEA AND OPEC OUTLOOKS

Figure 15. World Primary Energy Fuel Shares in 2010 and Outlook for 2035



Focus on the **share of natural gas, mainly for electricity**

Figure 17. World Liquids Demand Projections in Various Scenarios



It depends on what you assume about:

- Economic growth
- Technology
- Policies
- Call on OPEC crude

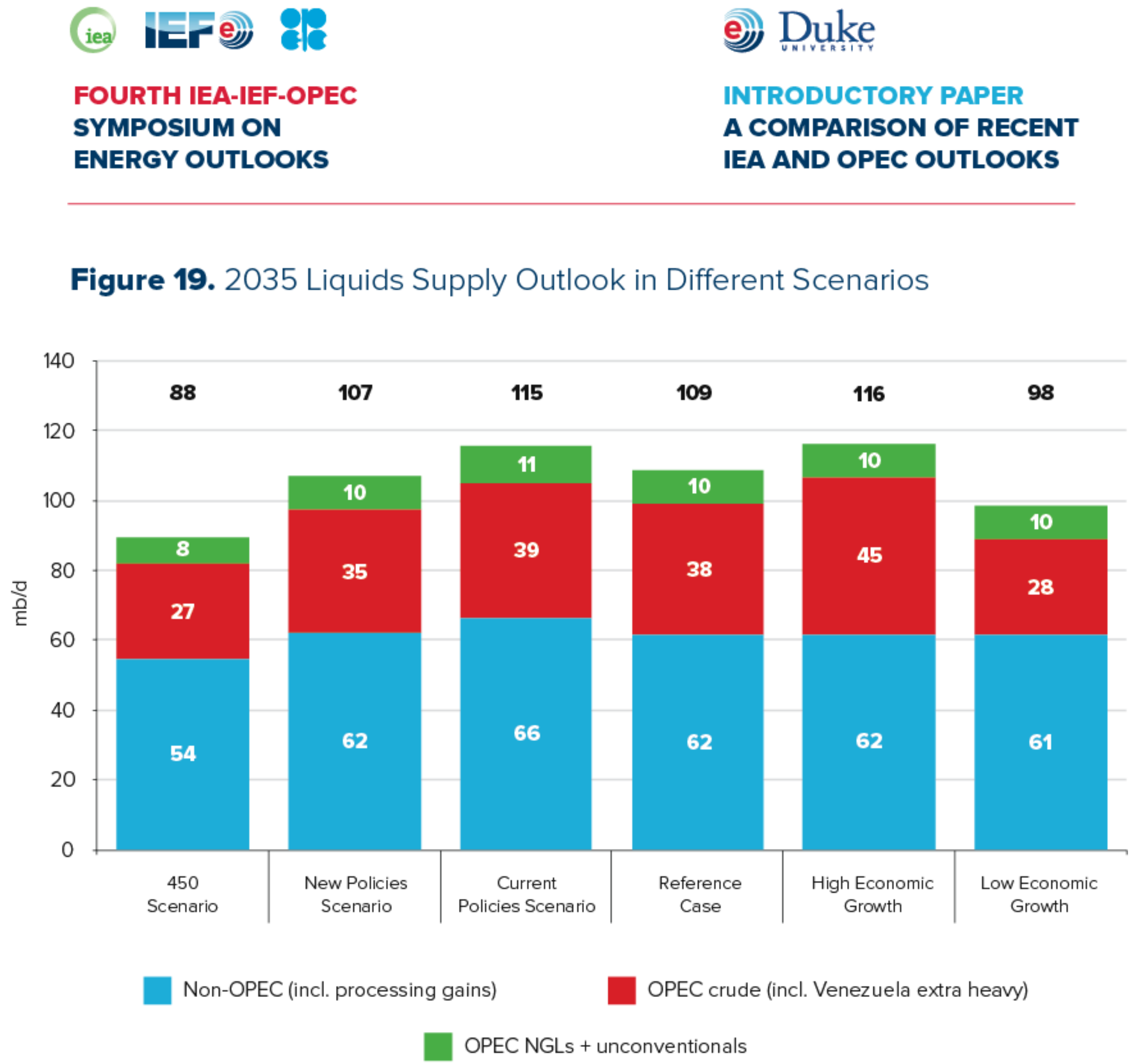
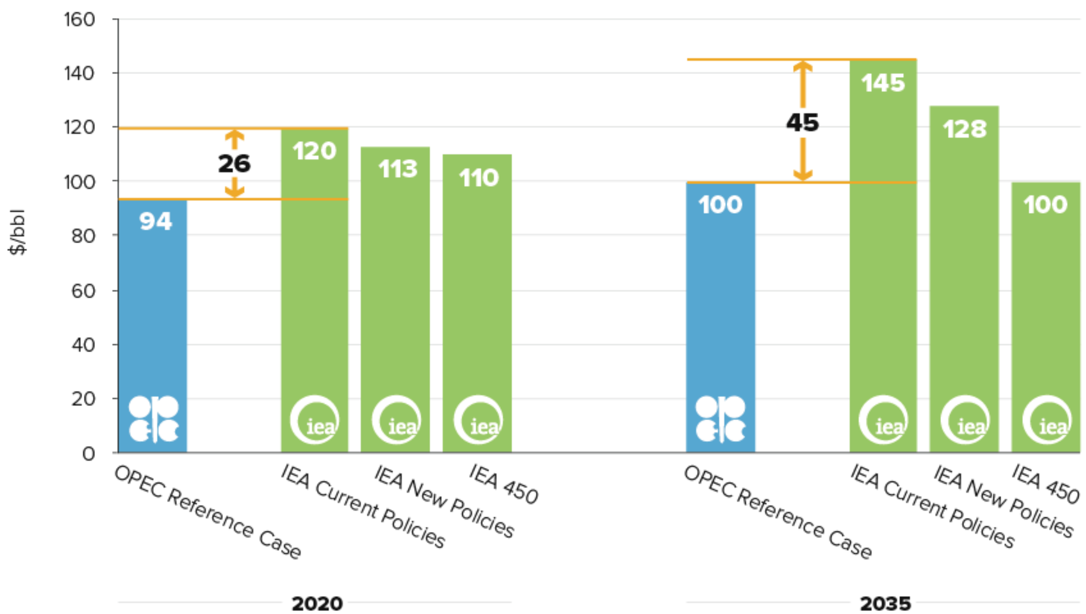


Figure 13. Long-Term Oil Price Assumptions (real 2012 US$)



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Four main consumer and producer strategies around natural gas

	Consumers	Producers
1. Size and composition of market		
2. Vertical integration		
3. Competition and contracts		
4. Cooperation and partnerships		

Asia: examples of consumer and producer strategies

	Consumers	Producers
1. Size and composition of market	• **Improve operational capability to receive all LNG grades** • **Develop various gas demand types** • **Procure through a single aggregator**	• **Improve operational capability to provide all LNG grades** • **Develop various gas supply types**
2. Vertical integration	• Expand participation in upstream segment • Expand participation throughout LNG value chain	• Expand participation in downstream segment • Expand participation throughout LNG value chain
3. Competition and contracts	• Diversify supply sources by geography and substitutes • Remove destination restrictions • Review and diversify contract types • Develop spot markets	• Diversify demand sources by geography • Keep destination restrictions • Keep long-term contracts
4. Cooperation and partnerships	• Create multilateral study group	• Experience sharing through GECF • Signaling and awareness campaigns

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Final remarks