



Energy Transition: The role of natural gas in the energy future

Dr Sun Xiansheng
Secretary General, IEF Riyadh

Overview

- 1. Global trends and IEF15 Outcomes**
- 2. What is the function of gas in the future?**
- 3. 5th IEF-IGU Ministerial Gas Forum India**

Overview

- 1. Global trends and IEF15 Outcomes**
2. What is the function of gas in the future?
3. 5th IEF-IGU Ministerial Gas Forum India

2014

3 SURPLUSES

2 FALLS

2015

5 CONTROLS

4 GUARANTEES

2016

Trend



Low for longer

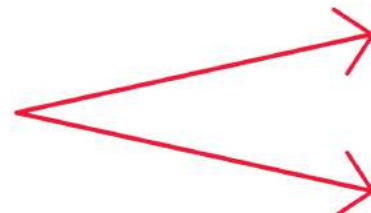
Certainties



Surplus supply

Lower demand

Uncertainties



Balance?

Technology?

2016

Proposals:

Full use of IEF Platform: → **Dialogue**

Full use of IEF JODI: → **Transparency**

IEF15 Outcomes



Four IEF15 Outcomes

1. Enhanced Dialogue in support of **an orderly energy transition**
2. Knowledge Sharing on Energy Efficiency and New Technologies
3. Sustainable Energy Access and Regional Market Development
4. JODI 5 Year Action Plan on completeness, visibility, and data use

Five IEF Functions

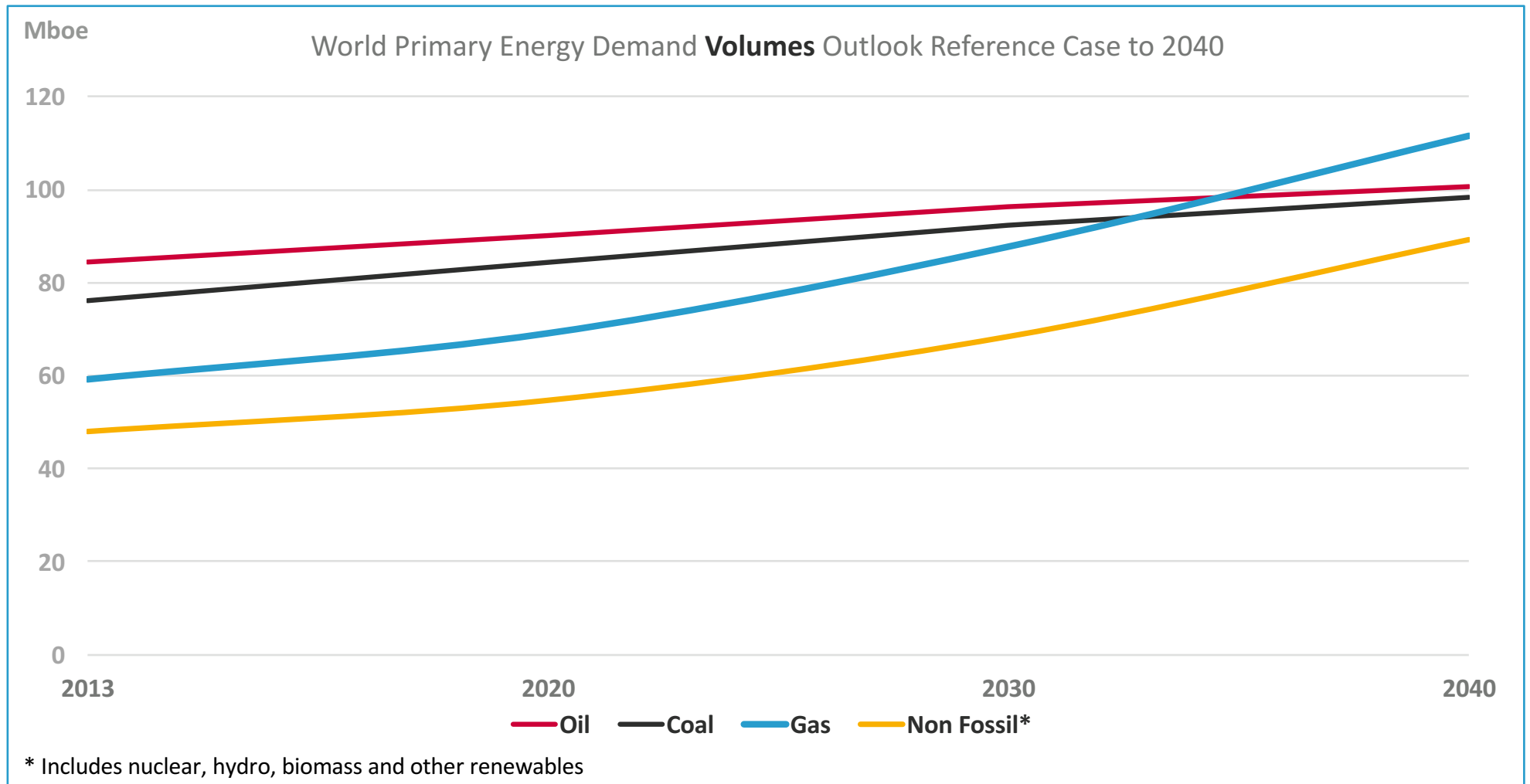
1. **Bridge** differences between producers and consumers
2. **Enhance** transparency in energy markets for stability
3. **Accelerate** efficiency gains through knowledge sharing
4. **Overcome** hurdles to integrate and transfer new technologies
5. **Identify** synergies between policies of countries and institutions

Overview

1. Global trends and IEF15 Outcomes
- 2. What is the function of gas in the future?**
3. 5th IEF-IGU Ministerial Gas Forum India

Producers see gas demand grow by 2.4 % yearly

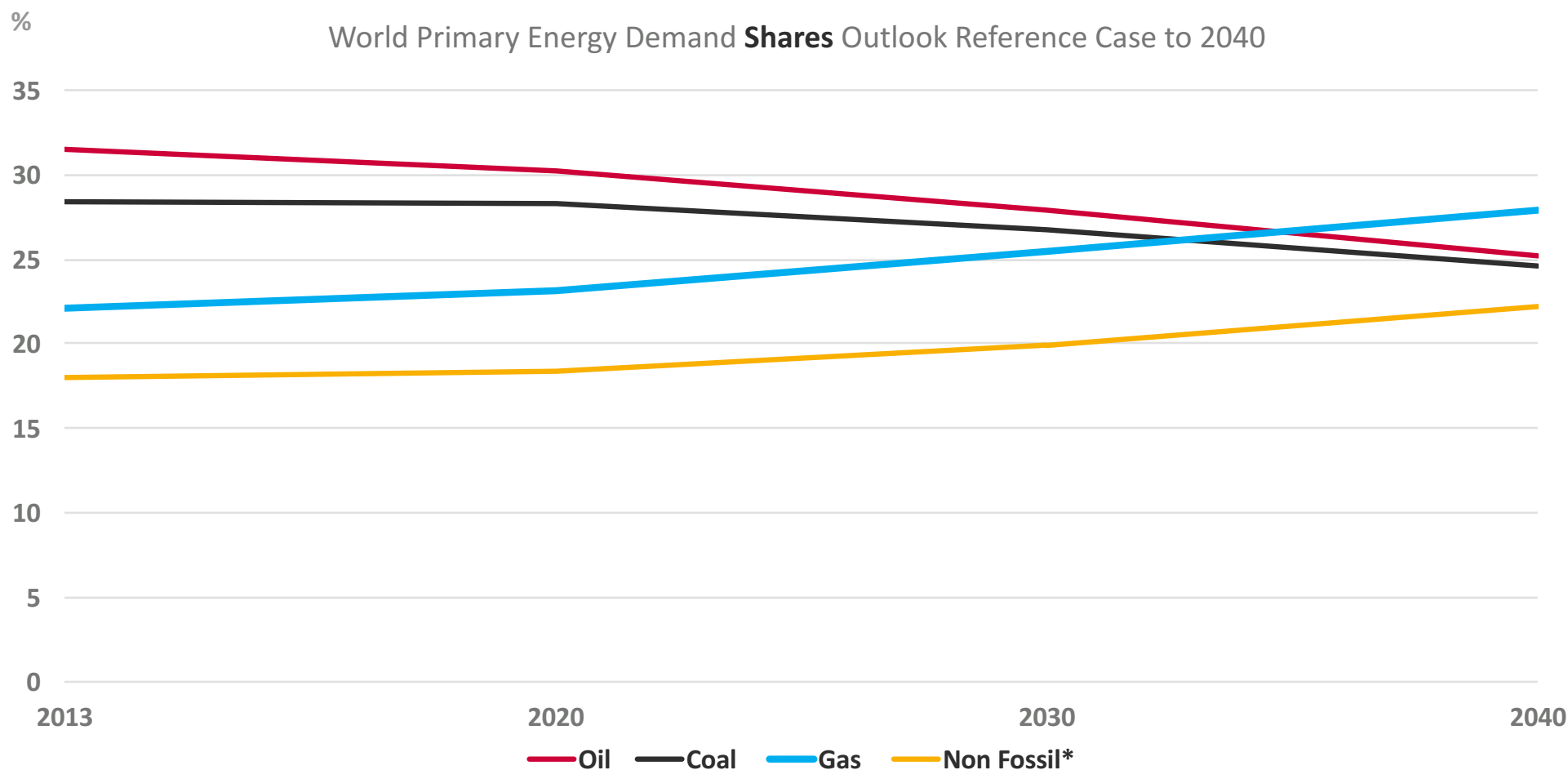
Aligned with bullish demand for non fossil energies



OPEC 2015 Data

Natural gas can take the largest share of demand

When compared to all other energies



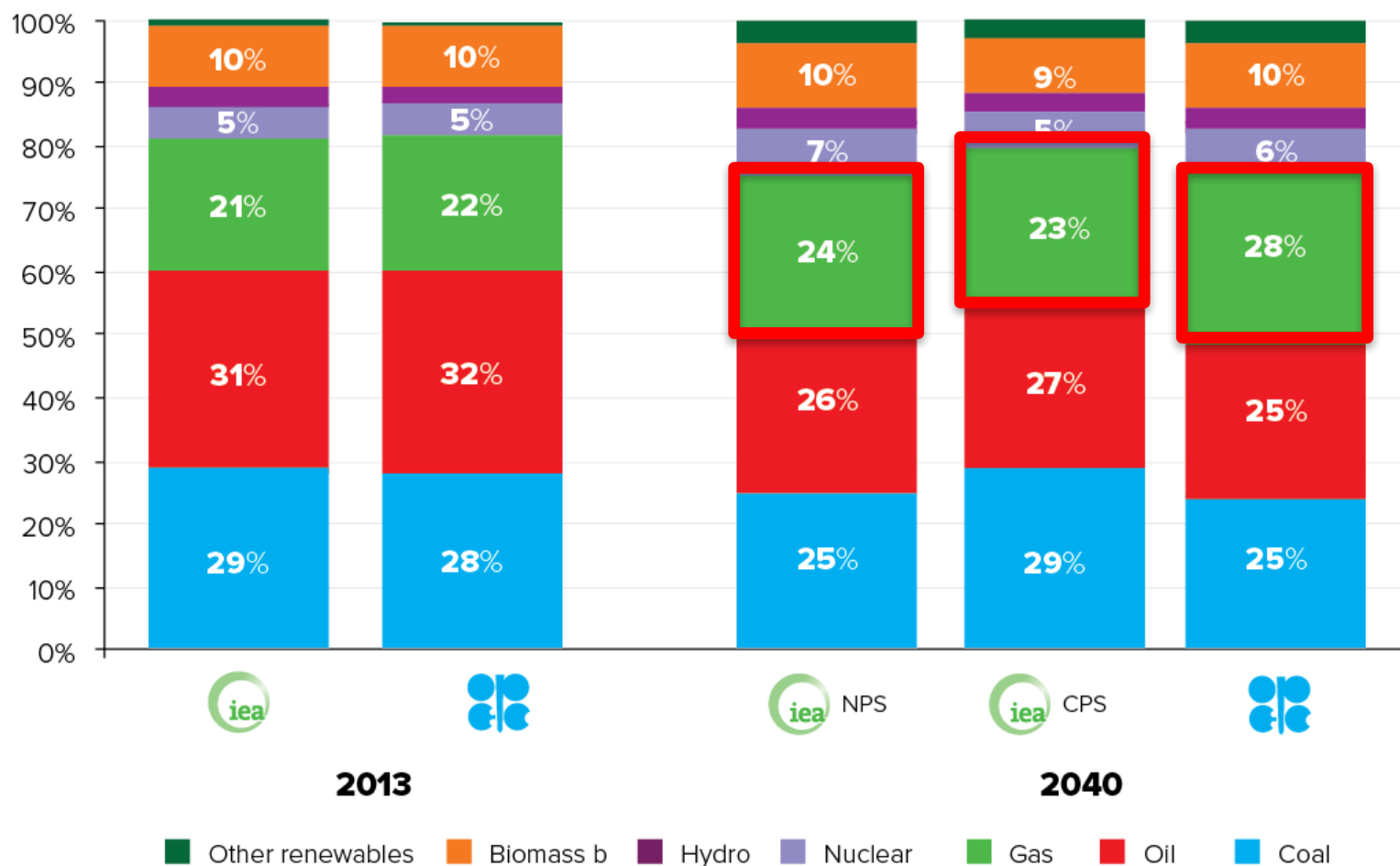
* Includes nuclear, hydro, biomass and other renewables

OPEC 2015 Data

But IEA – OPEC gas share outlooks vary

By ~4%-5% in 2040

World Primary Energy Fuel Shares in 2013 and Outlook for 2040

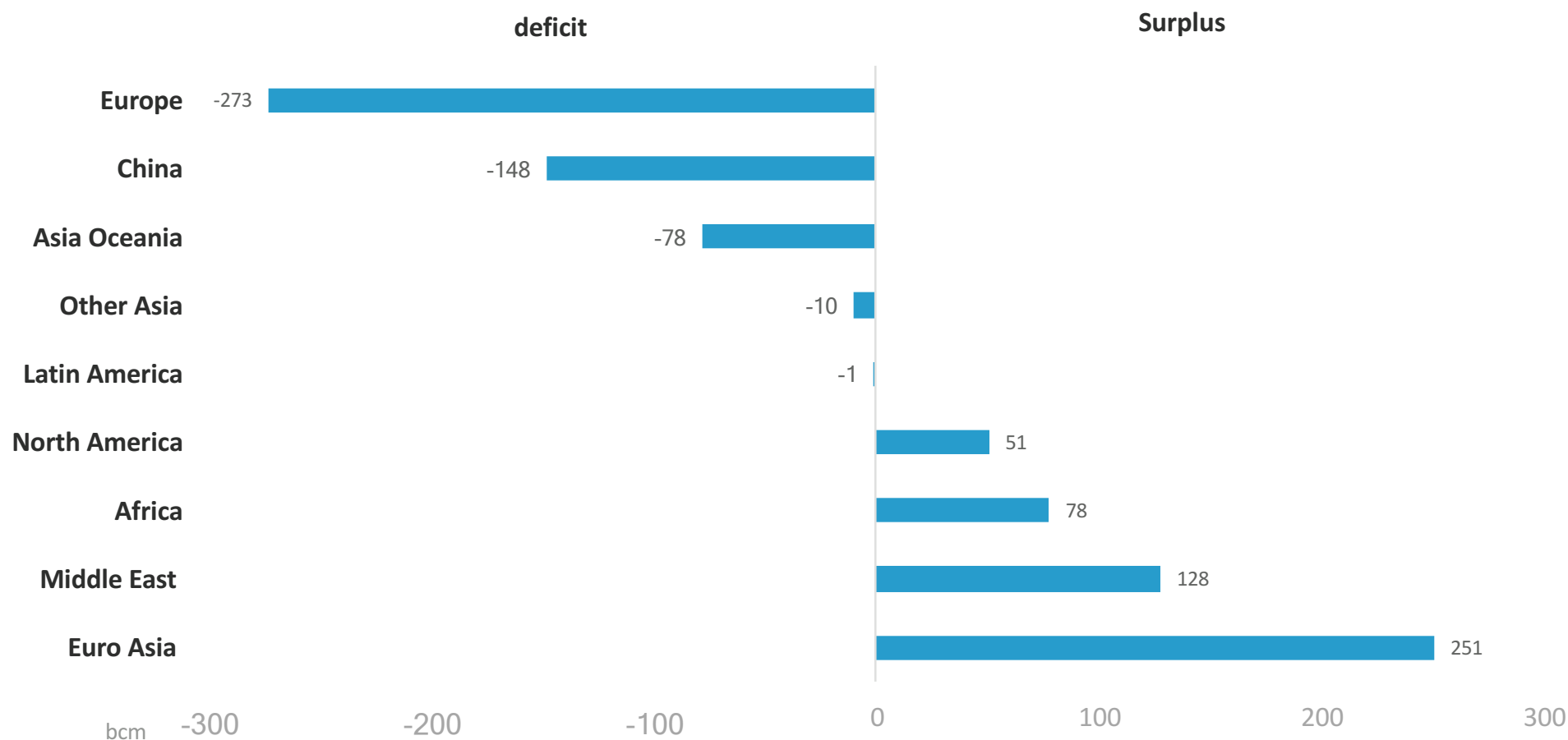


Sources: IEF-Duke Introductory Paper A Comparison of Recent IEA and OPEC Outlooks 2016

Yet chances for gas to deliver transition are historic

More dialogue and new approaches are needed

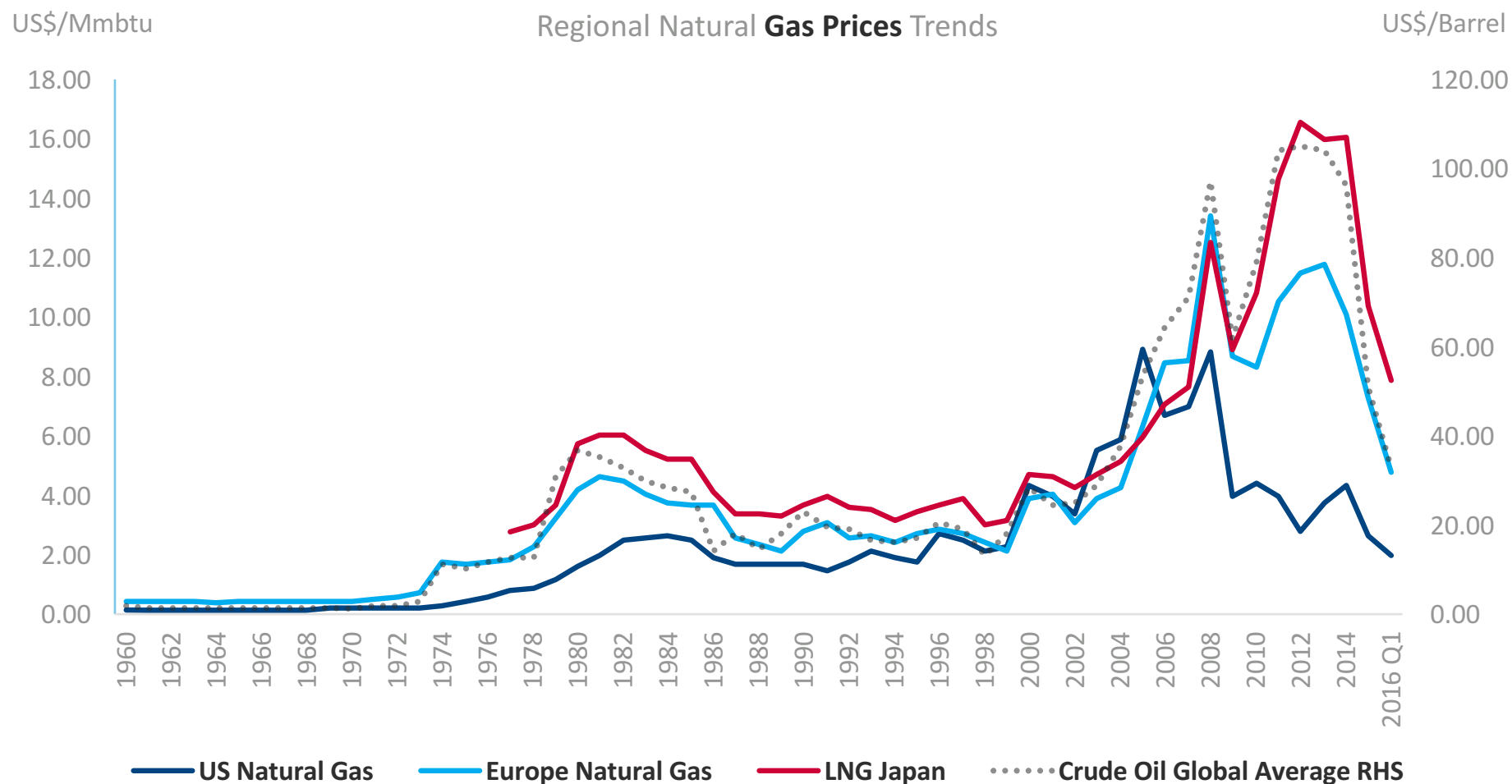
Net Tradable Volumes Across Key Regions by 2020



IEA 2015 Data

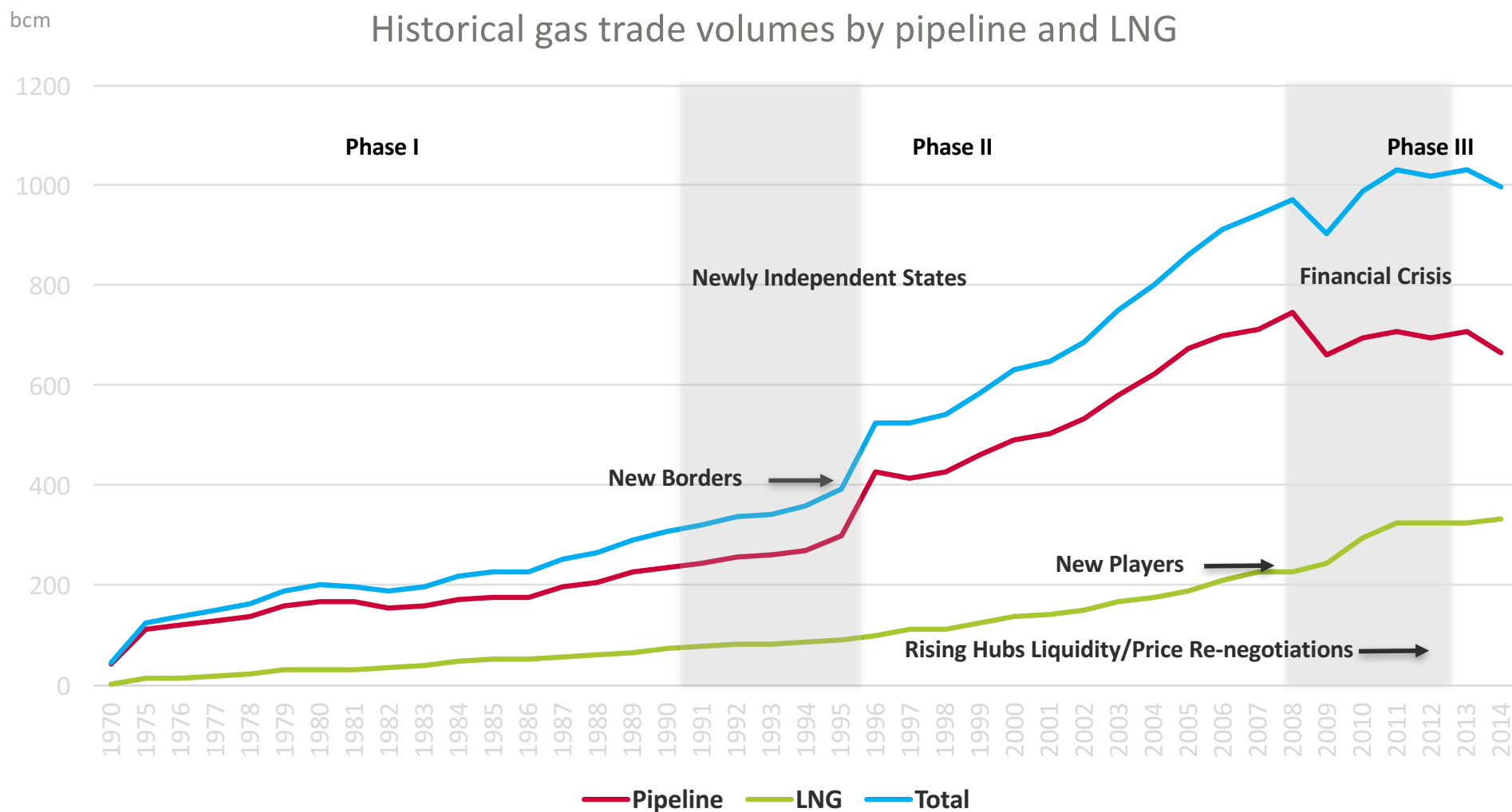
Price trends reduce investment incentives

Long term gas market outlook is more uncertain

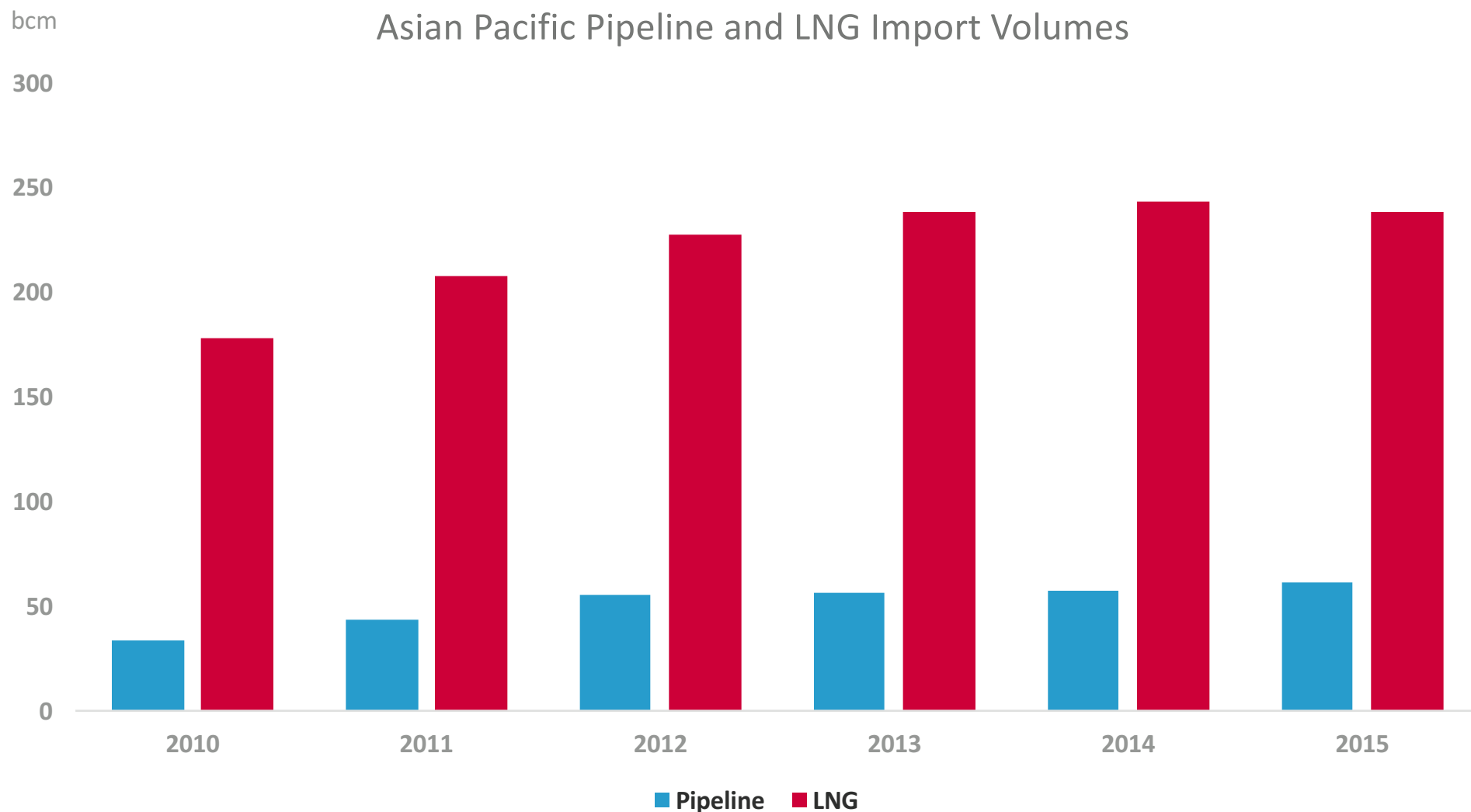


World Bank 2016 Data

LNG - pipeline interactions stage the future

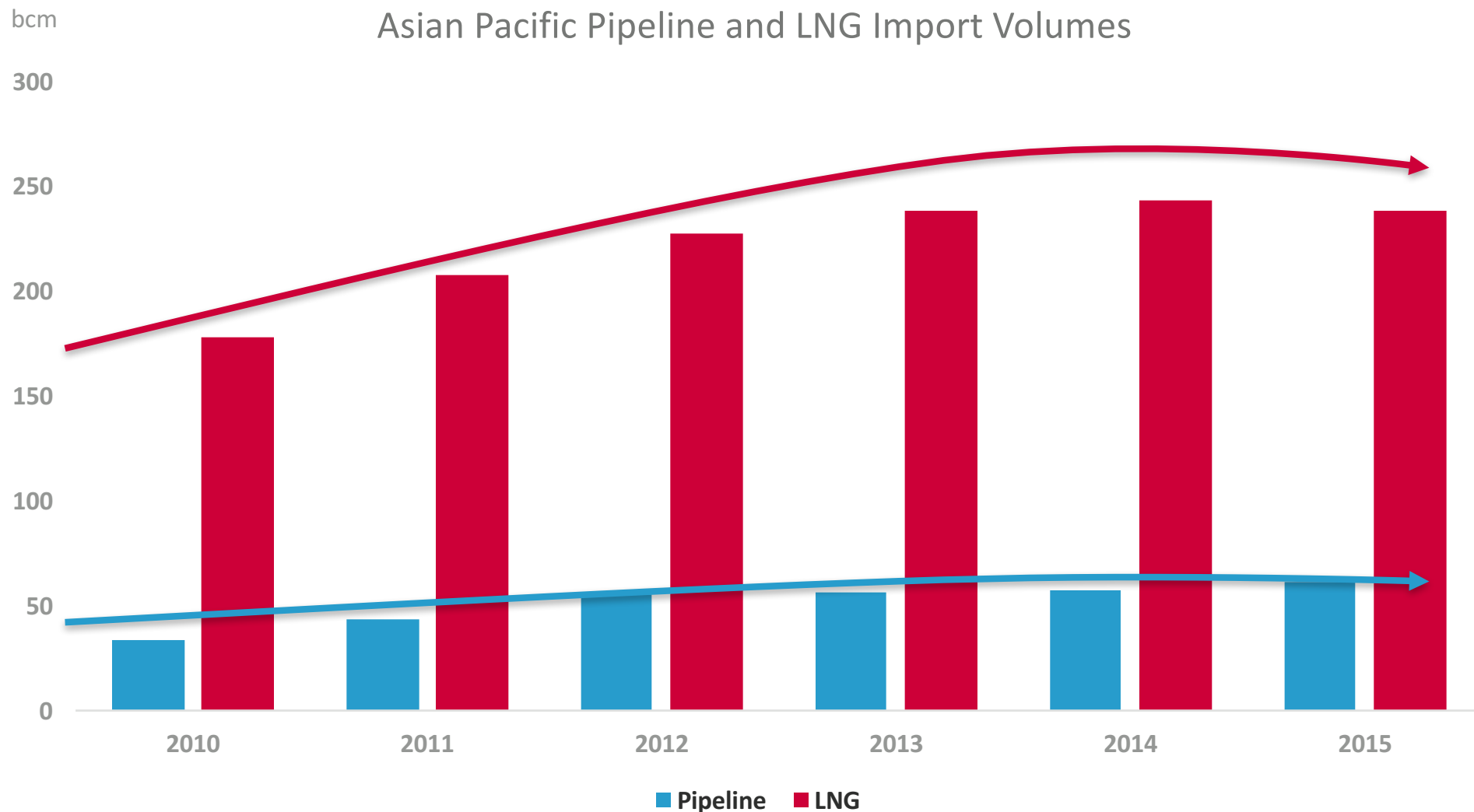


Asian Pacific gas trade is dominated by LNG



BP 2016 Cedigaz 2015 Data

But growth has peaked and slowed



BP 2016 Cedigaz 2015 Data, Indicative IEF trends lines

Better energy data availability is necessary

To enable natural gas to deliver transition goals

- JODI Gas allows in-depth analysis of natural gas markets with seasonality details
- Improves timeliness and accuracy of annual data provision by accounting for energy content/gas quality differences
- Identifies spot and longer term investment and trade opportunities, also in relation to other energy sources such as coal and non-fossil

Achievement so far made by JODI-Gas

- One of the first monthly gas data sources outside IEA/Eurostat MOS gas data collection mechanism
- Catalyst for key gas producers and consumers (notably Algeria, China, Indonesia, Malaysia, Qatar and Russia) to focus on monthly data reporting.
- Improving complete, timely and reliable gas market data and visibility of key platforms

Overview

1. Global trends and IEF15 Outcomes
2. What is the function of gas in the future?
- 3. 5th IEF-IGU Ministerial Gas Forum India**

New visions on a healthy energy future focus on more efficient and clean fossil fuel technologies

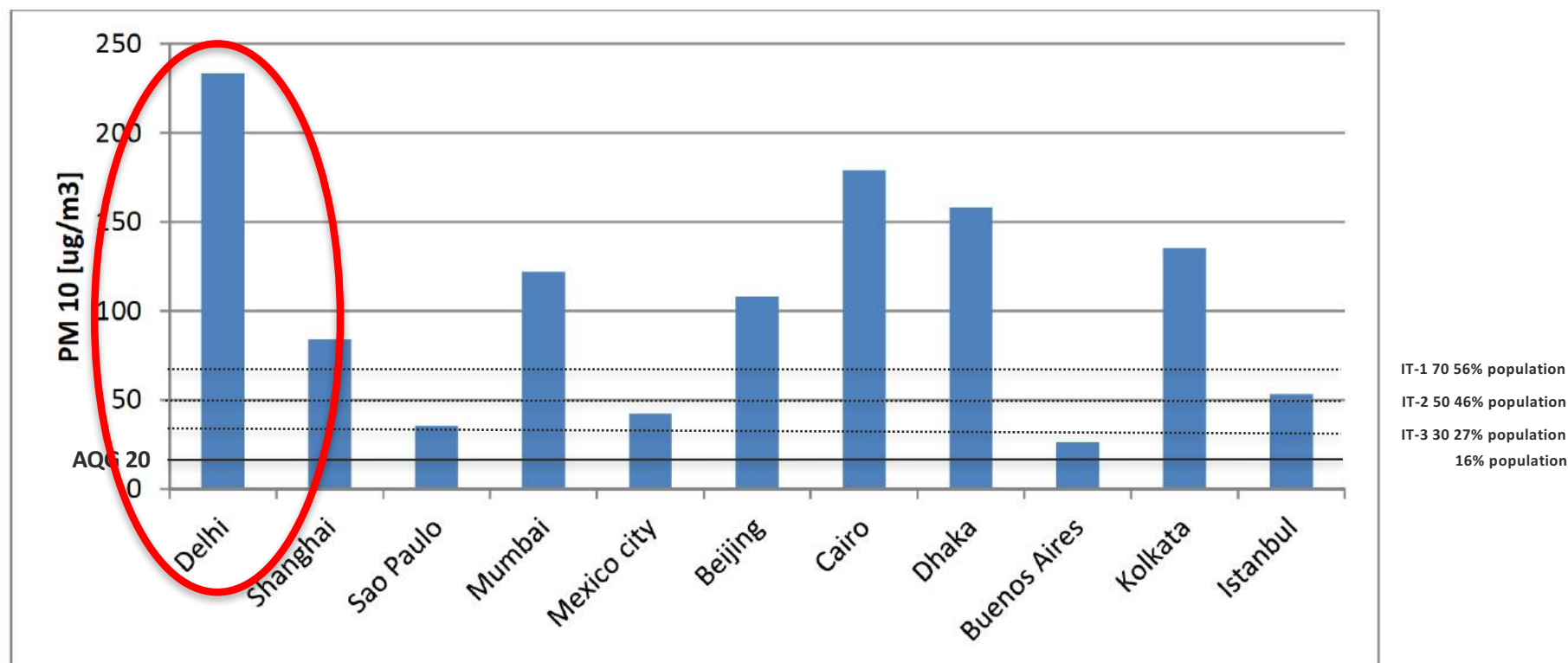


Delegates to the IEF15 welcomed the proposal of the Kingdom of Saudi to establish an **Energy Efficiency and New Technology Knowledge Sharing Framework** and India as the host of the **5th IEF-IGU Ministerial Gas Forum** on 6 December

AMER6, G20 and IEF15 Concluding Statements (2015-2016)

Air Quality Guidelines will advance gas market penetration in and around large urban centers

Figure 4: PM_{10} levels for available mega-cities of more than 14 million habitants for the last available year in the period 2011-2015.



PM_{10} : Fine particulate matter of 10 microns or less.

World Health Organization 2016 WHO's Urban Ambient Air Pollution database – Update 2016

Next IEF-IGU Ministerial Meeting in 2016

THE 5th MINISTERIAL GAS FORUM

6 DECEMBER 2016 NEW DELHI, INDIA

HOSTED BY THE GOVERNMENT OF INDIA



INTERNATIONAL ENERGY FORUM



Thank You



INTERNATIONAL ENERGY FORUM

www.ief.org

www.jodidata.org

CELEBRATING 25 YEARS OF THE PRODUCER-CONSUMER DIALOGUE