



**RPGC**

# The Gas Day

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## *International Gas Union*

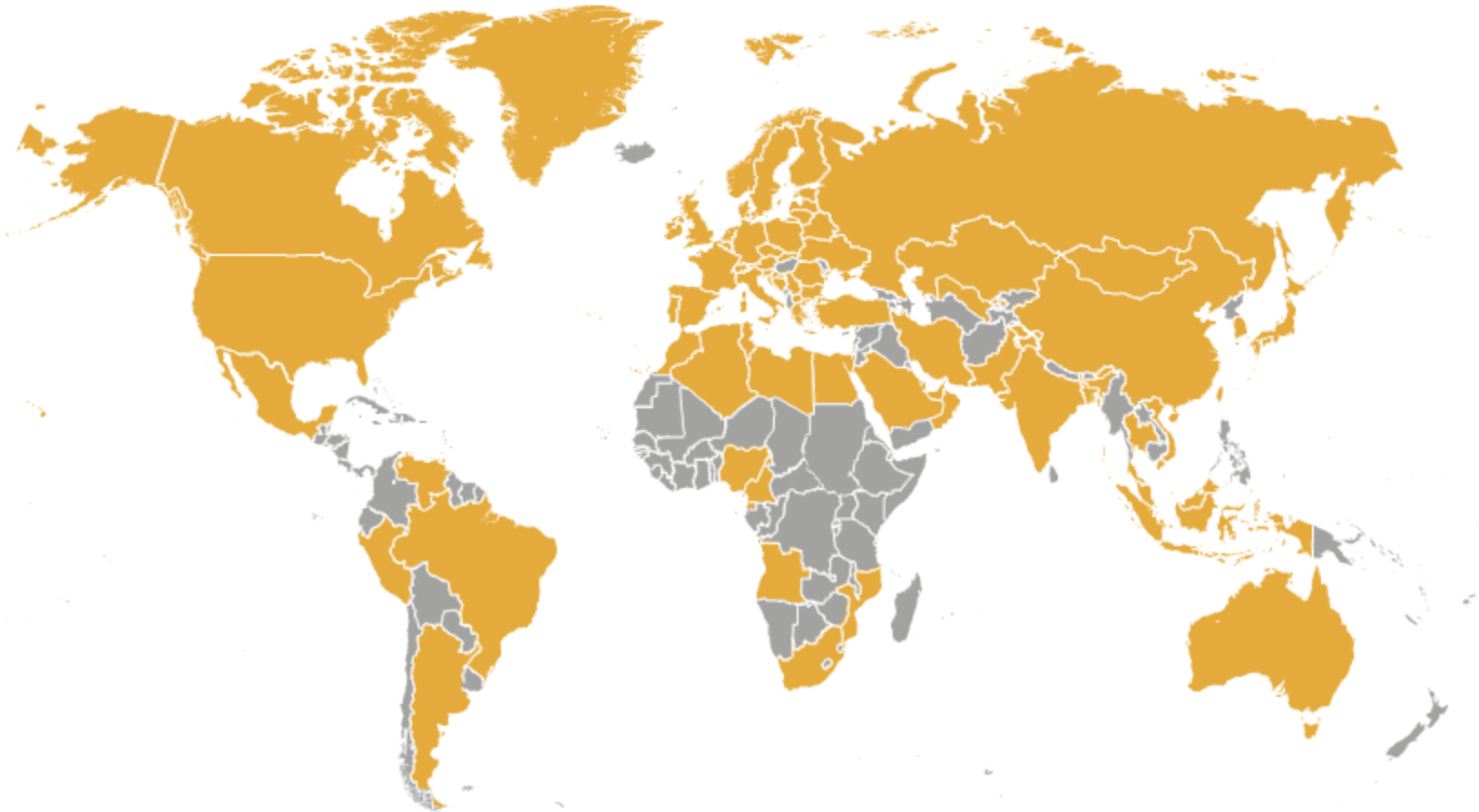
**Global Vision for Gas:**

**Path for the Sustainable Energy Future**

**Ksenia Gladkova**  
**Advisor to Secretary General**  
**International Gas Union**

**10<sup>th</sup> Russian Petroleum & Gas Congress**  
**Moscow, June 2012**

# IGU membership



- **79 Charter Members**
- **38 Associate members**

# Natural Gas – the fuel with a voice!

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- Worldwide non–profit organisation established in 1931
- Promotes **political, technical and economic progress** of the gas industry
- Emphasising sound **environmental performance** worldwide
- Increased focus on **strategic, policy** issues and **gas advocacy**

*The most influential, effective and independant NGO, serving as the spokesperson for the gas industry worldwide*

*The biggest driver of energy demand: the human desire to*

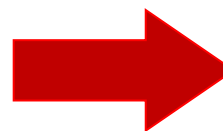


*sustain  
and improve  
the well-being*



➤ People need  
improving access to:

- Food
- Water
- Employment



- Energy security
- Climate change



# The Energy Challenge

- More
- Cleaner
- Affordable
- Reliable
- Safe

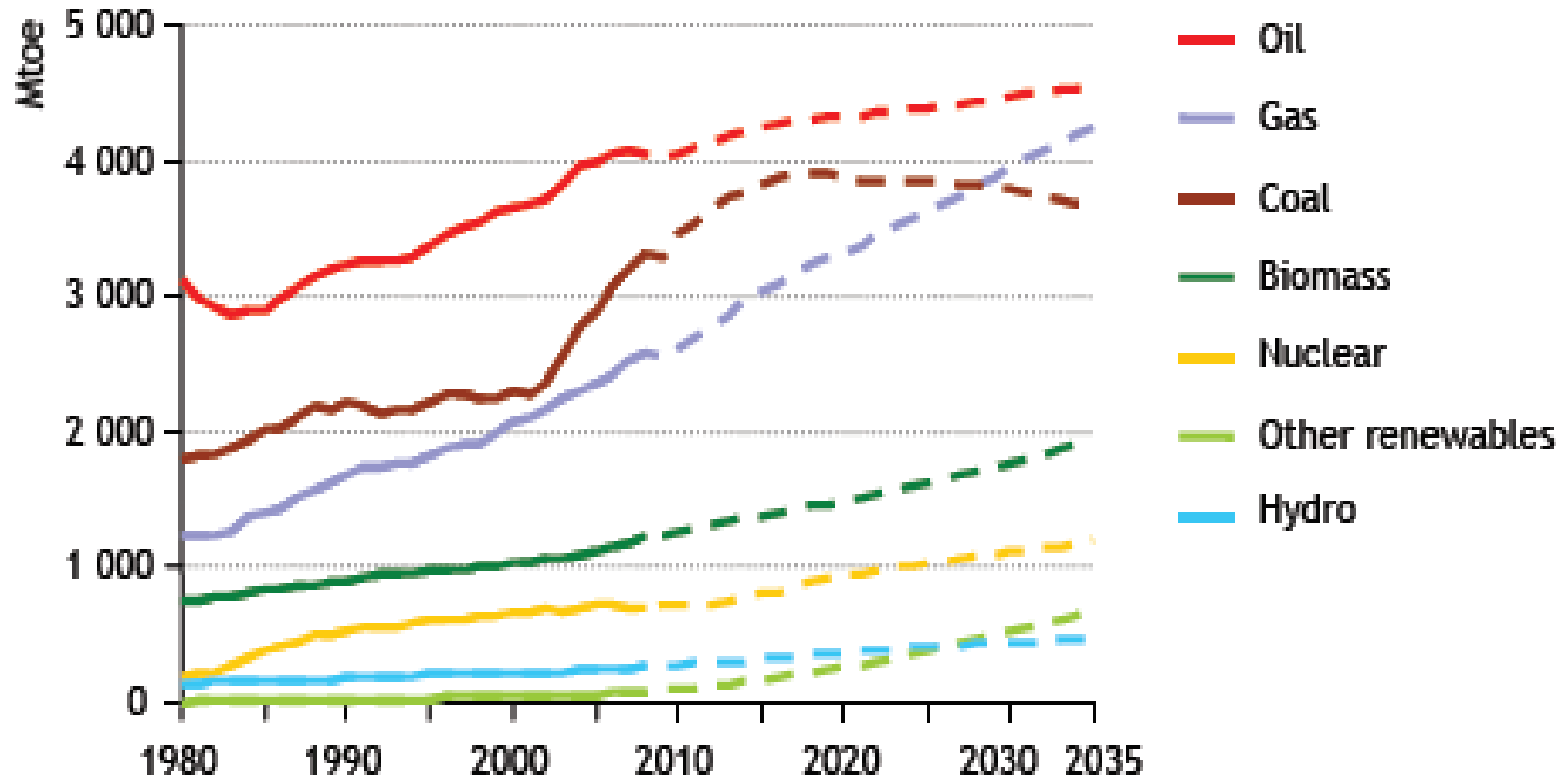


Impact of Fukushima



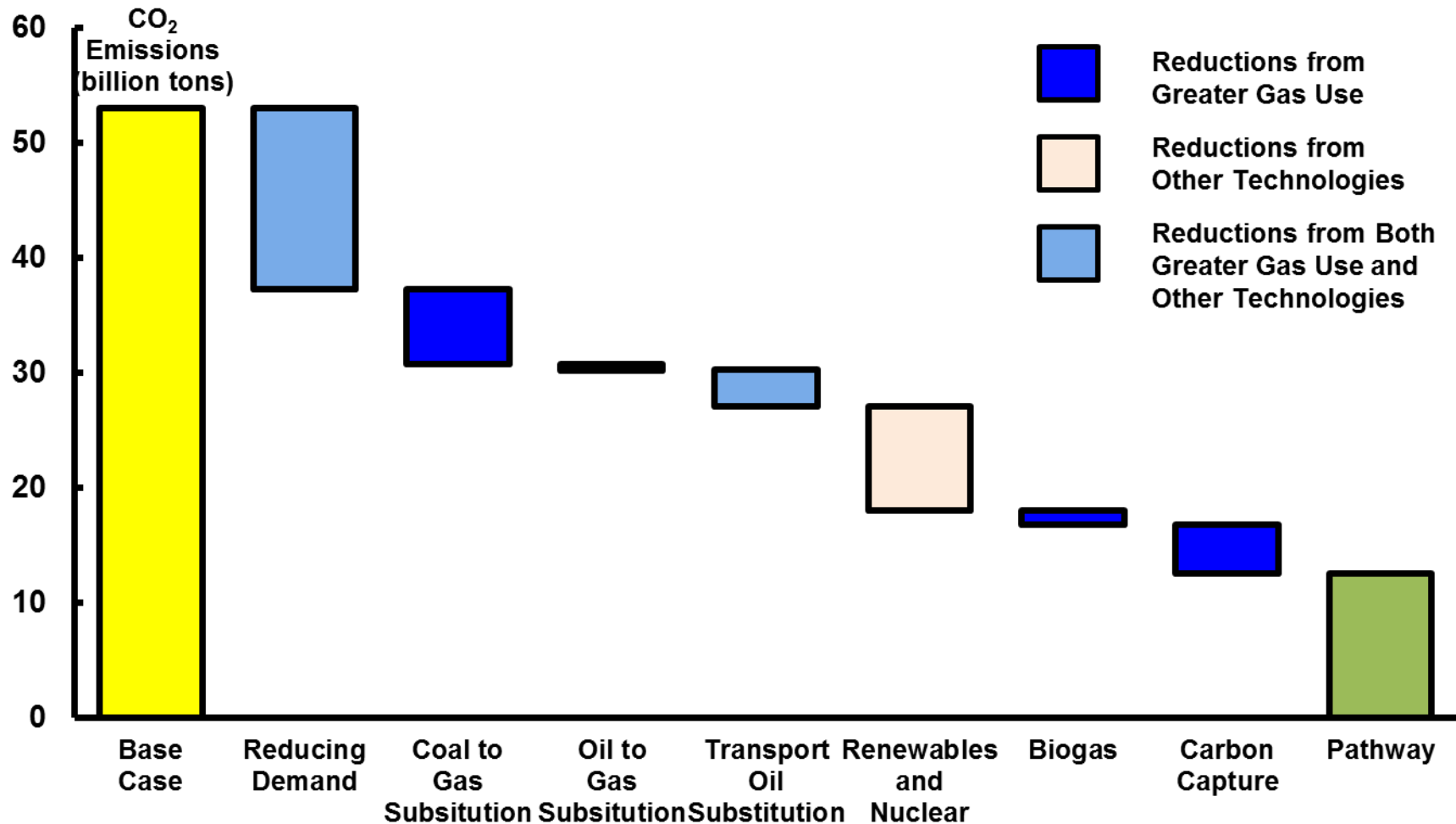
***Need a realistic approach***

# Growing energy demand – need for all energy sources available



Source: IEA, The Golden Age of Gas, 2011 (the GAS scenario)

# Global Emissions Reductions by Abatement Method





# Natural gas can enable renewable energy

- An **energy alternative** is needed to outpace fast growth of energy demand.



**Natural gas can be such alternative.**

- Gas is **complementary** to intermittent renewables.
- In EU, natural gas is vital to “help” renewables to meet the **2050 reduction ambitions**.



*The perfect match!*



*You Can't simply Turn on the Sun and the Wind*



# Natural Gas:

## Addressing the World's Challenges

### Key Global Challenges

Population Growth & Resource Availability

Economic Development & Employment

Energy Poverty & Public Health

Air Quality & Climate Change

Mobility

Affordability

### Role of Natural Gas

**Abundant**

**Feedstock and employment**

**Reduce smog and pollution**

**Low SO<sub>x</sub>, NO<sub>x</sub> and CO<sub>2</sub>**

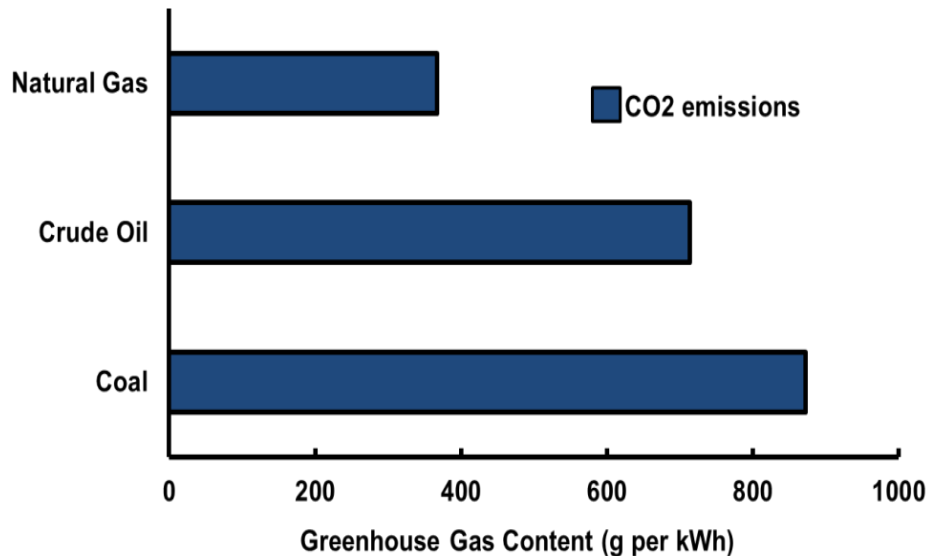
**LNG and CNG for transport**

**CCGT low cost**

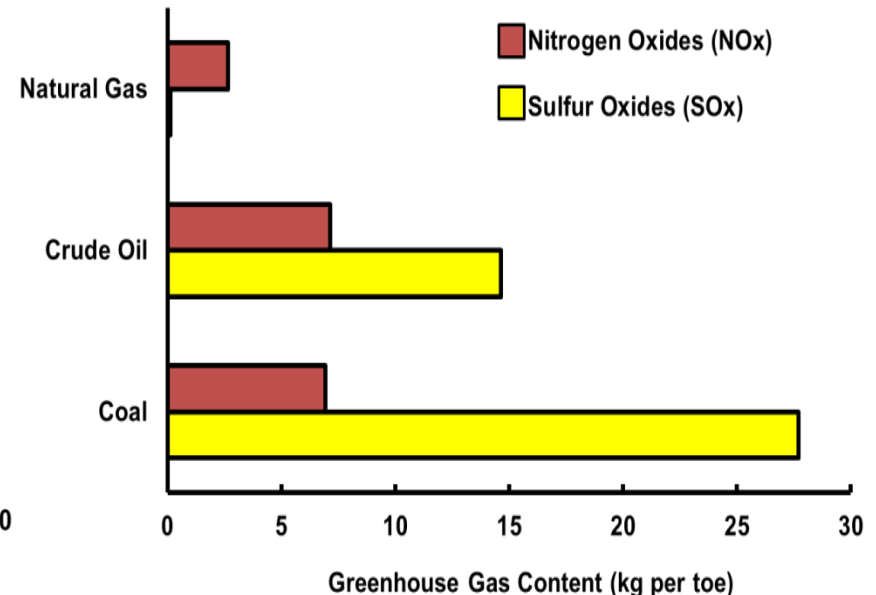
# Natural gas can contribute to better air quality and to mitigating climate change

## ➤ Natural gas is a clean-burning and low carbon fuel

### Carbon Dioxide Emitted During Electricity Generation by Fuel\*



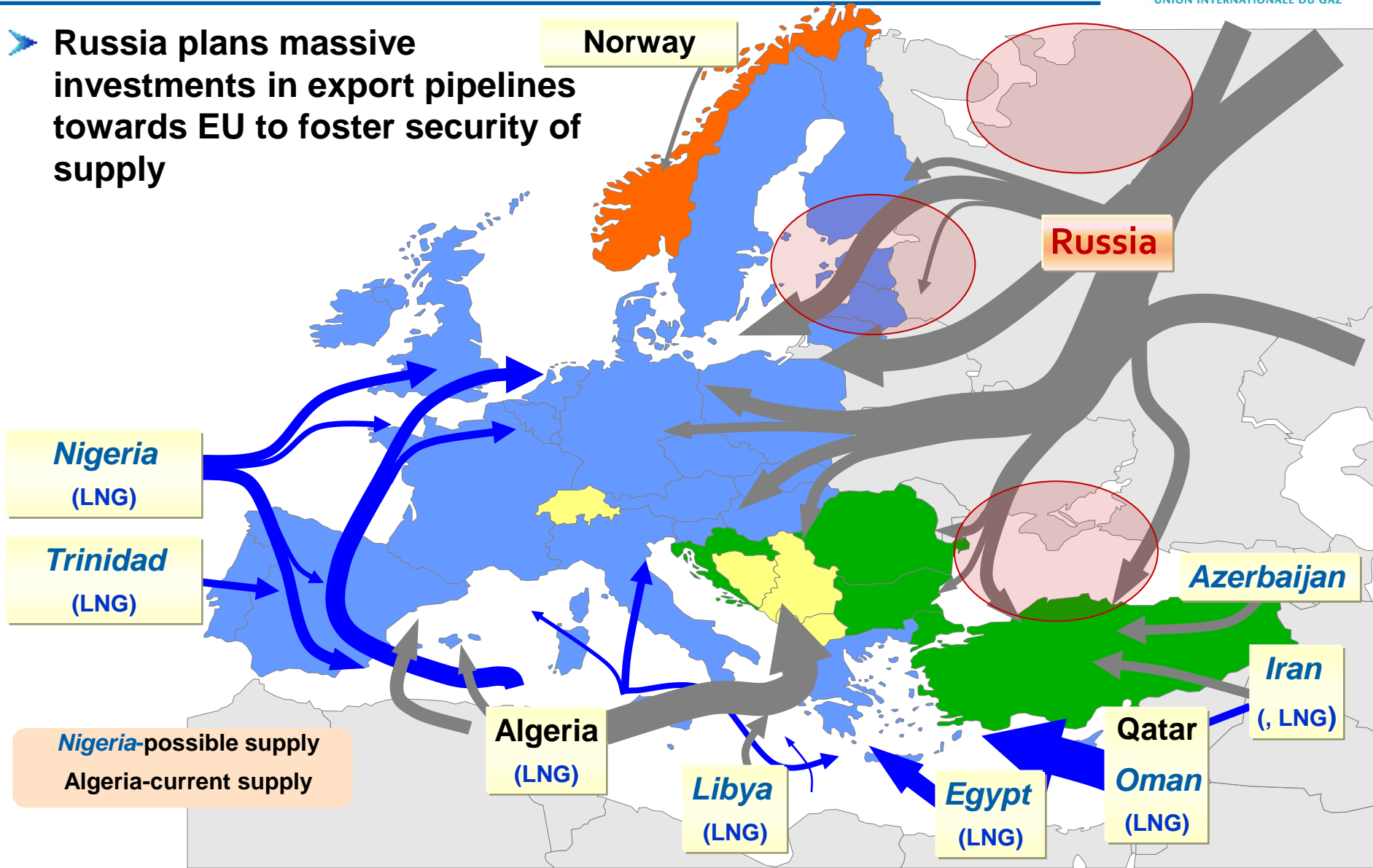
### NOX AND SOX CONTENT BY FUEL



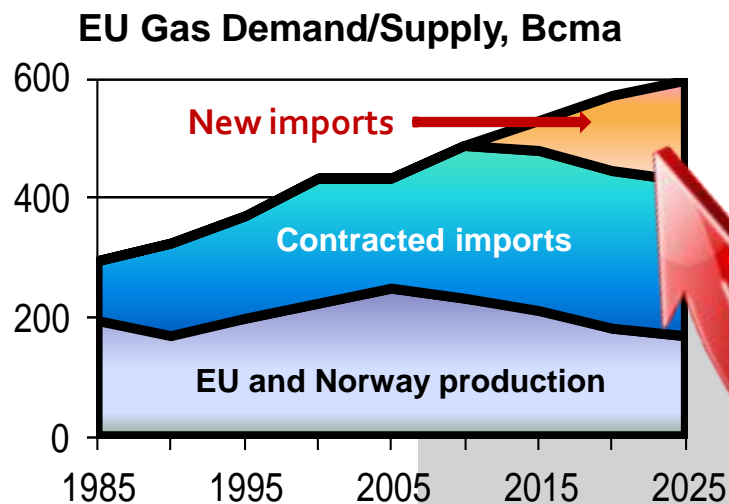
Ad \*: Power generation efficiencies assumed: Natural gas 55%, crude oil 37%, coal 39%

# Gas Supply to EU in 2015

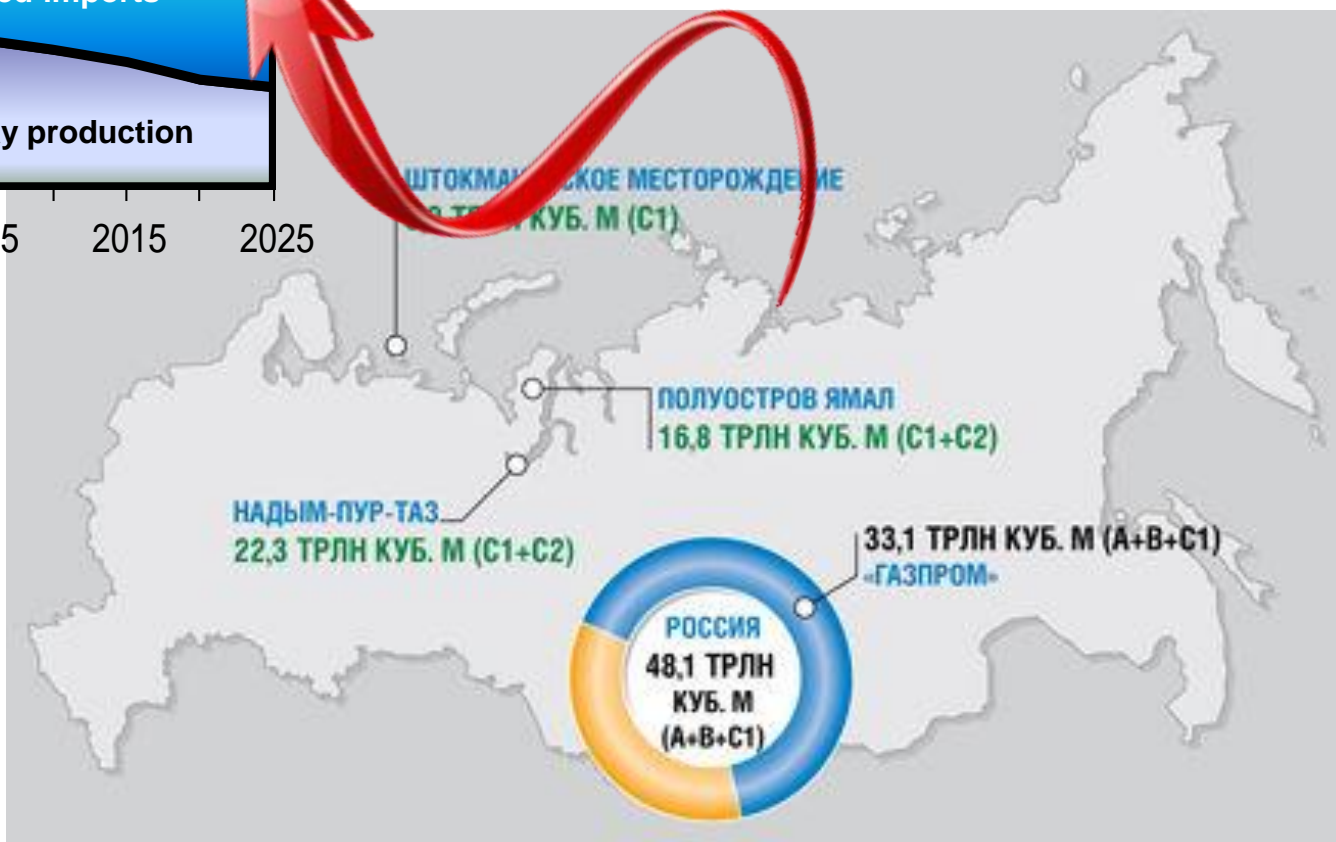
- Russia plans massive investments in export pipelines towards EU to foster security of supply



# Russian Gas Supply

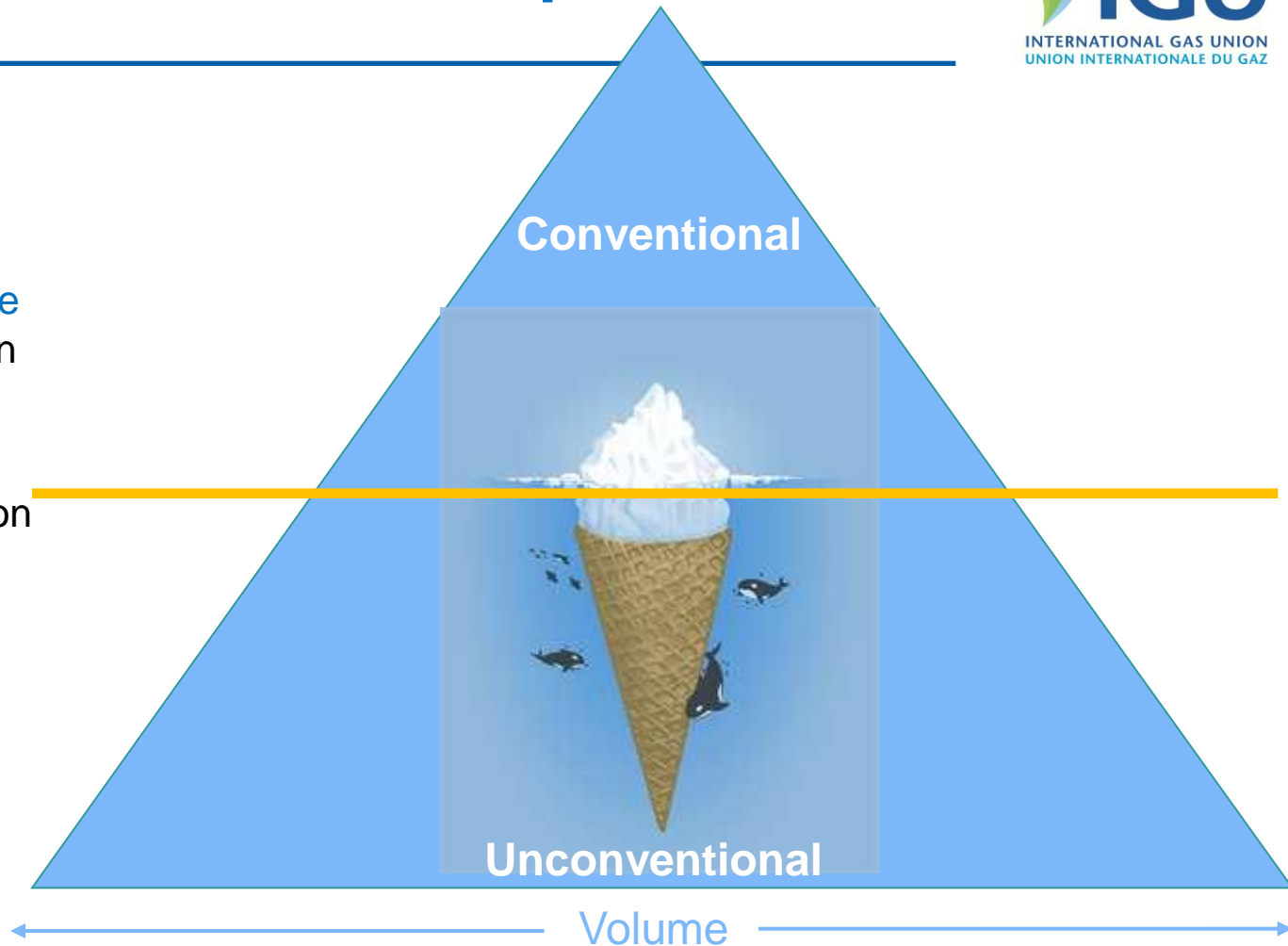


- EU and Russia need each other to achieve a sustainable energy security
- Russia needs demand security to develop its reserves



# Unconventional Gas Development

- Game changer in North America
- But it is the only place with actual production
- Europe: very preliminary exploration
- High variability of resources estimates
- LT supply may come from outside the US
- The impact may be significant in Europe post-2020



**Recoverable gas resources for 250 years**

IEA-WEO2009

# A Global Vision for Gas

**Natural gas is a fuel very well-suited to meet energy challenges**

- **Growing availability**
- **Attractive for urban living**
- **Gas in power generation is a proven, low carbon option**
- **Highly cost competitive**
- **Major generator of employment across the globe**
- **The technologies are proven**



# A Global Vision for Gas - followed

The 'Global Vision for Gas' lays out a clear pathway towards a sustainable energy future.

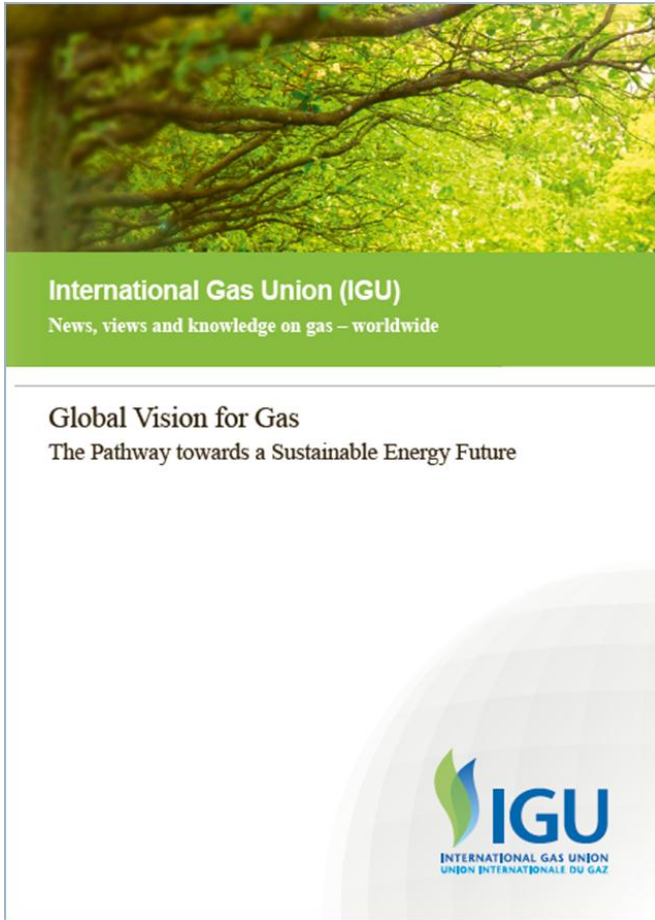
- There is a strong need for a **portfolio approach** in energy:
  - Reductions in energy use
  - Enhanced energy efficiency
  - Expanded use of zero carbon technologies
  - Greater resort to clean-burning natural gas.

**Policymakers need to recognize the critical role that natural gas plays alongside other low-carbon options, and facilitate the appropriate policy enablers**



# Global Vision for Gas:

## The Pathway towards a Sustainable Energy Future



**Download possible from:**

**<http://www.igu.org>**

# Triennial Work Programme 2012-2015

*“Growing together towards a friendly planet”*



**HUMAN  
RESOURCES  
FOR THE  
FUTURE**

**NATURAL GAS  
FOR A SUSTAINABLE  
DEVELOPMENT**

**NATURAL GAS  
AVAILABLE  
EVERYWHERE**

**COMBINATION  
WITH RENEWABLES  
& ELECTRICITY**



# IGU is creating arenas for....

## *Networking - Knowledge - Dialogue*

- **Co-sponsor of LNG Conferences**  
**LNG 17 in Houston, USA, April 2013**



- **The IGU Research Conference**  
**IGRC 2014 in Copenhagen, Denmark,**  
**October 2014**



- **The IGU World Gas Conference**  
**Paris 2015**



# Wide range of information available



## Selected Publications:

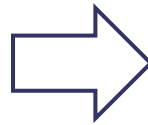
- IGU Guiding Principles for Sustainable Development
- Natural Gas – Part of the Solution to Global Climate Change
- Natural Gas Unlocking the Low-Carbon Future
- The Role of Natural Gas in a Sustainable Energy Market (with Eurogas)
- Guidebook to Gas Interchangeability and Gas Quality (with BP)

## Different slide packages & reports:

- Natural Gas: Facts & Figures
  - Markets for gas
  - Natural gas resources, supply & transport
  - Environmental impact
  - Prospects for developments of further technological options
- Slide package on advocacy
- Report on Gas and Climate Change Mitigation
- Report on environmental issues surrounding shale gas production, based on US experience
- Overview summarising basic information and environmental concerns related to shale gas, based on US experience

[www.igu.org/gas-advocacy](http://www.igu.org/gas-advocacy)

# New logo from June 2012!



**СПАСИБО ЗА  
ВНИМАНИЕ**

# Back up

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# Natural gas CARES for the world

**C** Clean

**A** Affordable

**R** Reliable

**E** Efficient

**S** Secure

**Natural gas is clean.**

Natural gas produces less nitrogen oxide than coal, and more than 50% less CO<sub>2</sub>. Gas produces no sulphur and no solid waste.

**Natural gas is the affordable choice.**

Modern gas-fired plants have a capital cost that is half that of coal, one-third the cost of nuclear and one-fifth the cost of onshore wind.

**Natural gas is available now.**

Gas is readily available from a variety of sources, both pipeline and LNG. The environmental benefits of gas can be realised immediately.

**Natural gas is efficient.**

Modern gas-fired power plants are 40% more efficient than coal plants.

**Natural gas is abundant.**

Global production will increase over the next 20 years, with growing supplies from conventional, unconventional, frontier and LNG resources.

**Natural gas promotes sustainable transport.**

Natural gas vehicles can improve air quality and energy efficiency in large cities.

**Natural gas does not require subsidies.**

Unlike renewable technologies which must be heavily subsidized by governments, natural gas use allows countries to affordably reduce their emissions.

**Natural gas is versatile.**

Gas can serve as a flexible partner in power generation for intermittent energy sources like wind and solar, facilitating the phase-in of renewables.

**Natural gas saves time.**

Gas-fired plants require less construction time than nuclear or coal plants.

**Natural gas is safe.**

The natural gas sector has the best safety record in the industry.

- In the pathway to a sustainable energy future, natural gas is more than a bridge, it is a destination fuel!