

THE 39th IBC PRESIDING COMMITTEE MEETING, St. Petersburg

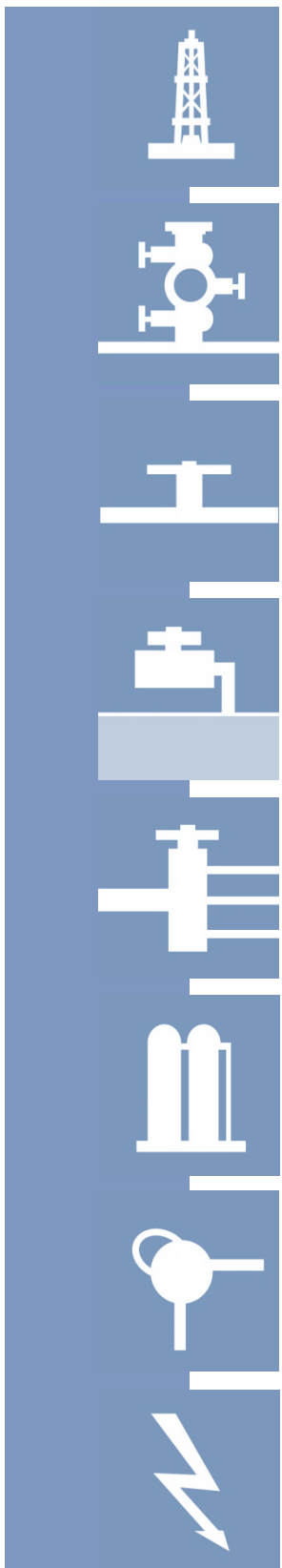


**International
Business Congress**

Focal Topic Of The 22nd IBC Annual General Meeting “Natural Gas – Paving The Way To Ecological Economy”

OLEG AKSYUTIN

*MEMBER OF THE IBC PRESIDING COMMITTEE,
CHAIRMAN OF Industry, Innovations and Prospective Development COMMITTEE;
MEMBER OF THE GAZPROM MANAGEMENT COMMITTEE , HEAD OF DEPARTMENT*





COP21 DECISION
(on adoption of the Paris Agreement on Climate Change):
countries are required to prepare by 2020
2050 LONG-TERM LOW GHG EMISSION DEVELOPMENT STRATEGY

NATIONALLY DETERMINED CONTRIBUTIONS



NEW REGULATIONS





EU

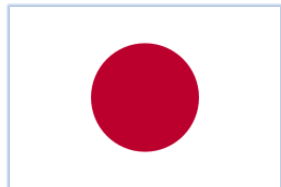
40% by 2030 (to 1990 levels)



CHINA

REACHING PEAK EMISSIONS

by 2030 → carbon intensity - **65%**
by 1% of GDP to 2005 levels



JAPAN

25.4% by 2030 (to 2005 levels)



USA

26-28% by 2025 (to 2005 levels)



CANADA

30% by 2030 (to 2005 levels)

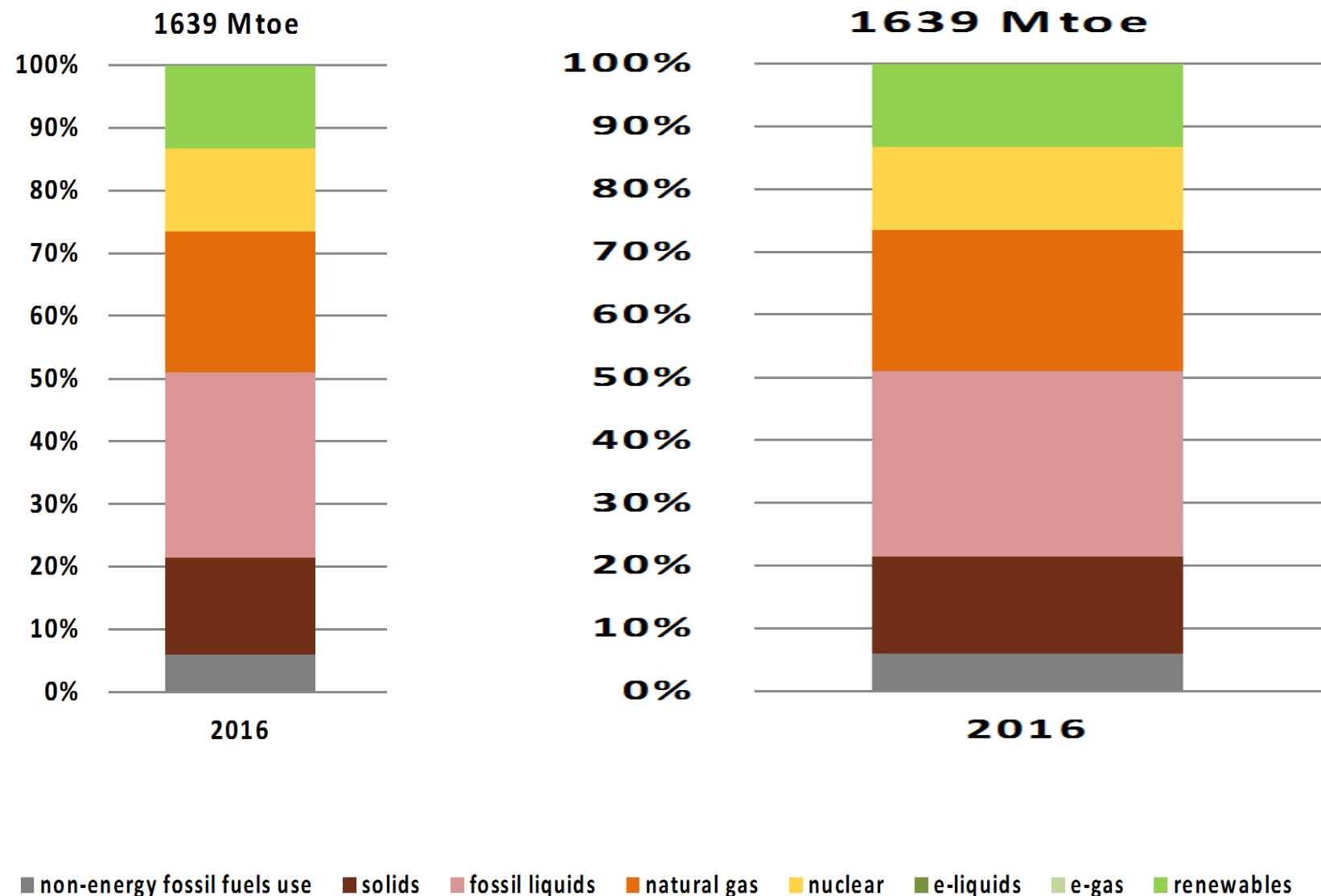
28 NOVEMBER 2018

The European Commission presented 8 scenarios:

**2 are to reduce emissions by 100%,
6 - by 80-95%**

9 MAY 2019 – the EU vision for a climate neutral Europe by 2050 will be considered by the European Council

Energy consumption by various scenarios



1. DEPENDANCE ON RARE EARTH METALS EXTRACTION (THE SHORTAGE OF CONSIDERABLE RESERVES IN THE EU)

Monopoly position of some countries

Risks of non-compliance with environmental standards

Social conflicts in extraction areas



2. DEPENDANCE ON ENERGY STORAGE SYSTEMS



NO CONTINUITY OF ELECTRICITY GENERATION



COMPARABLE TO THE ELECTRICITY GENERATION SYSTEM



**THE NEED FOR AN UNMANAGEABLE POWER GRID SYSTEM
(the refusal of land owners)**

3. DEPENDNCE ON CLIMATE CHANGE



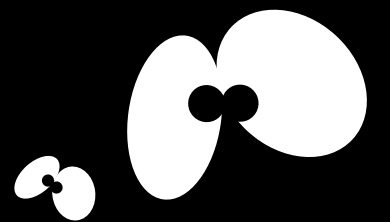
CLIMATE CHANGE – SHAKY FOUNDATIONS FOR RES



MORE EXTREME WEATHER EVENTS



MORE BLACKOUTS



Sources:



GAS-FIRED POWER GENERATION



RENEWABLE ENERGY

CONSUMPTION OF MATERIALS AND VALUABLE CHEMICAL ELEMENTS

22 %

140-353 %

IMPACT ON ECOSYSTEMS

21 %

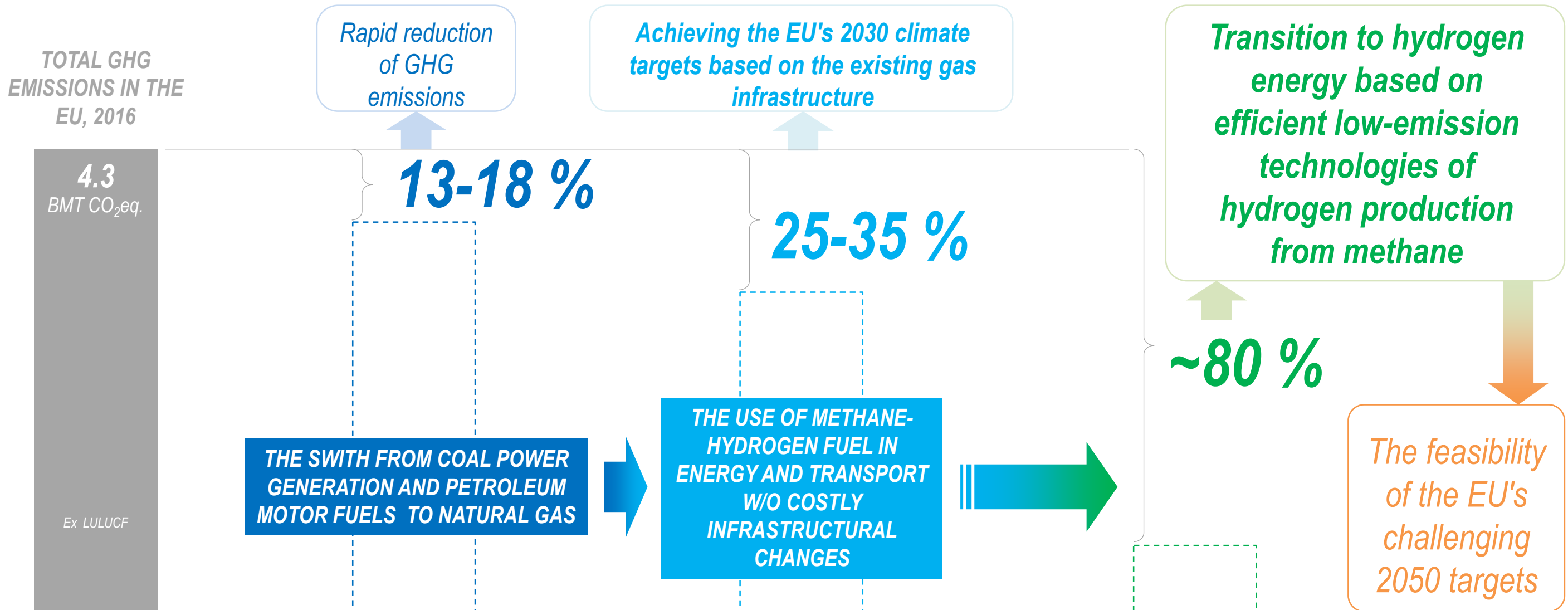
61-127 %

** over the world energy balance*

ENERGY RETURN ON ENERGY INVESTED

28

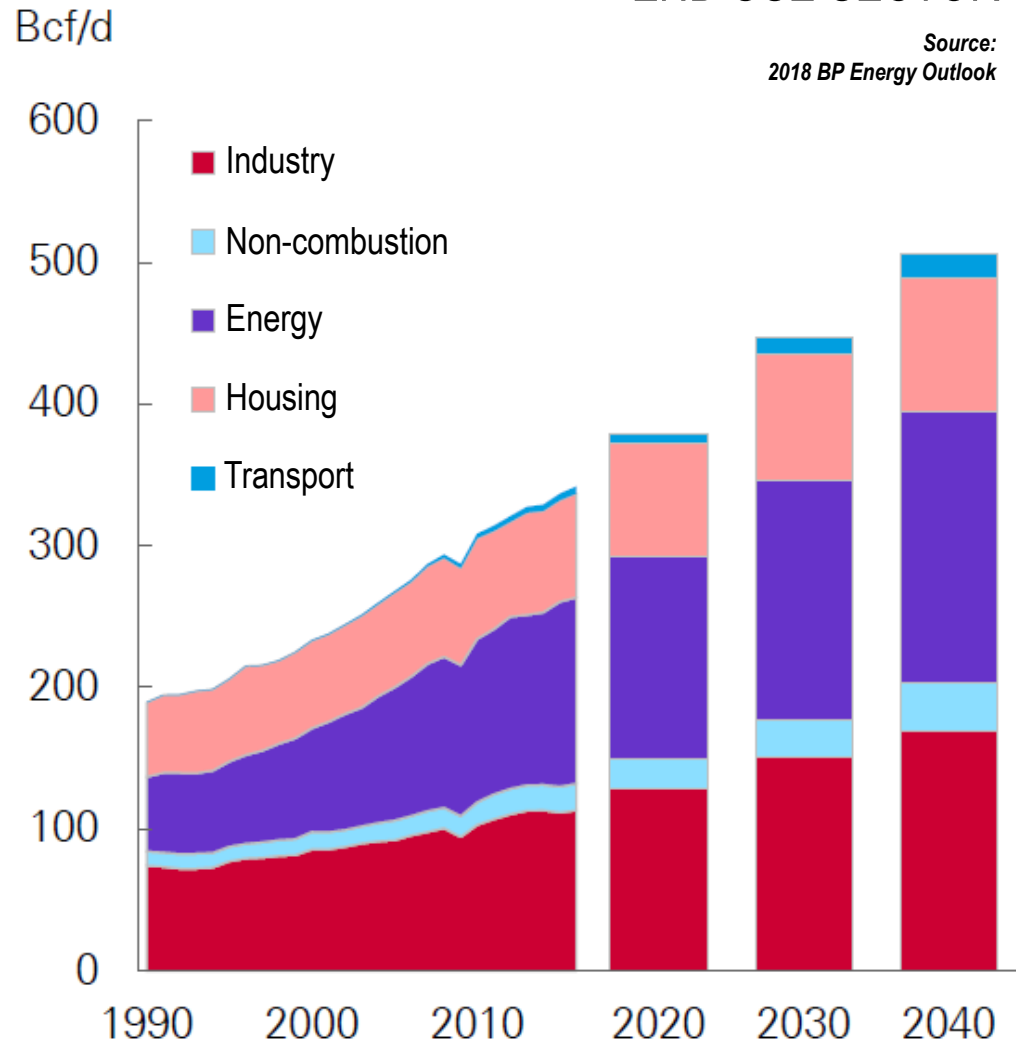
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NATURAL GAS CONSUMPTION BY END USE SECTOR

Source:
2018 BP Energy Outlook



INCREASE IN NATURAL GAS CONSUMPTION FOR ALL MAIN SECTORS OF THE ECONOMY

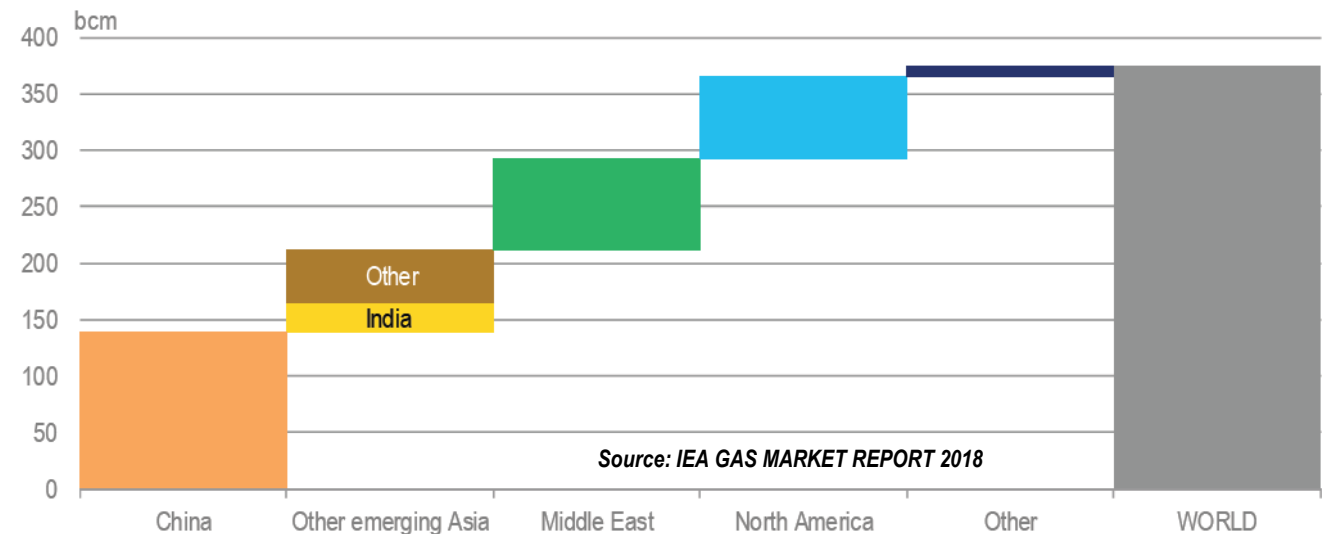
1.6%

ANNUAL INCREASE IN DEMAND FOR NATURAL GAS*

Source: IEA World Energy Outlook, 2017

* for New Policies Scenario

SHORT-TERM OUTLOOK FOR NATURAL GAS DEMAND, 2017-2023



Source: IEA GAS MARKET REPORT 2018

The 22nd IBC Annual General Meeting



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NATURAL GAS – PAVING THE WAY TO ECOLOGICAL ECONOMY

30-31 May 2019, BONN (GERMANY)

