

We speak on behalf of a global membership

IOGP has 86 Members (as of January 2023)

Europe Asia Pacific IAPACI Middle East and Africa (MEA)

Americas

API ExxonMobil
ARPEL IADC
Atlantic LNG IBP
Baker Hughes Kosmos Energy
CAPP Pan American Energy
Chevron Pluspetrol
Colombian Security Council
ConcoPhillips Suncor
EnerGeo Alliance
YPF SA

Middle East and Africa (MEA)

ADNOC
AKT
Petroleum Corporation
Genel Energy
Azule Energy
Basrah Gas Company
CC Energy Development
Crescent Petroleum
Dana Gas
Dolphin Energy
Day Oil
Day Onangol

Europe

Aker BP
Aker Solutions
Aker Solutions
Aksala Energy
Diffshore Energies UK
Offshore Norge
DW
BVEG
DPITO
BW Energy
PKN Orlen S.A.
Capricorn Energy
Repsol
Cepsa EP
Saipem
Christof Industries
DNV
Shell
Element NL
Spirit Energy
Energy Institute
Eni SpA
TotalEnergies
Equinor
Trident Energy
Harbour Energy
Tullow Oil
HeliOffshore
Uintersolution
Uintersoluti

Asia Pacific (APAC)

Beach Energy Brunei Shell Petroleum CNOOC International INPEX KazMunayGas NCOC PETRONAS Carigali PT Pertamina Hulu Energi PTTEP SOCAR Woodside Energy

The map shows the division of the world into four regions on which subscription shares are based. The delineation of zones is not intended to reflect offshore boundaries.

Map shows locations of Member Head Offices. Many operate globally



European Membership



Agenda:

- IOGP Europe Studies : Rebalancing Europe's Gas Supply Study & Hydrogen4EU Study
- EU Green Deal Industrial Plan
- Carbon, Capture & Storage
- Climate Diplomacy



IOGP Europe Studies

- Rebalancing Europe's Gas Supply Study
- Hydrogen4EU Study



Studies: Rebalancing Europe's Gas Supply Study & Hydrogen4EU Study

Rebalancing Europe's Gas Supply Study

REBALANCING EUROPE'S GAS SUPPLY OPPORTUNITIES IN A NEW ERA

SEPTEMBER 2022

Co-sponsors

Technical input from

Anerican Profession Institute

Anerican Profession Institute

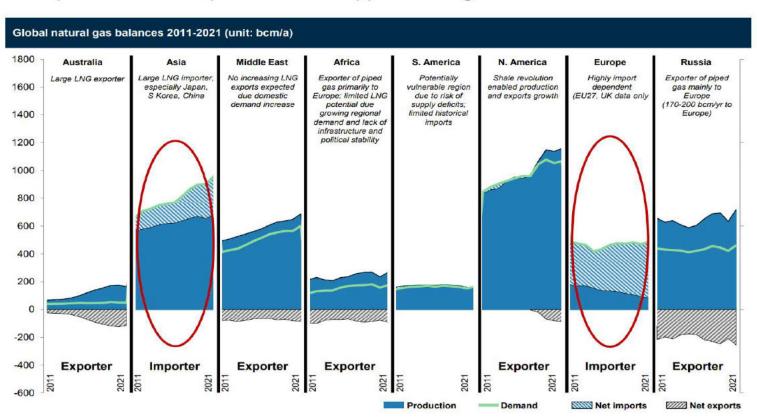
Hydrogen4EU 2022



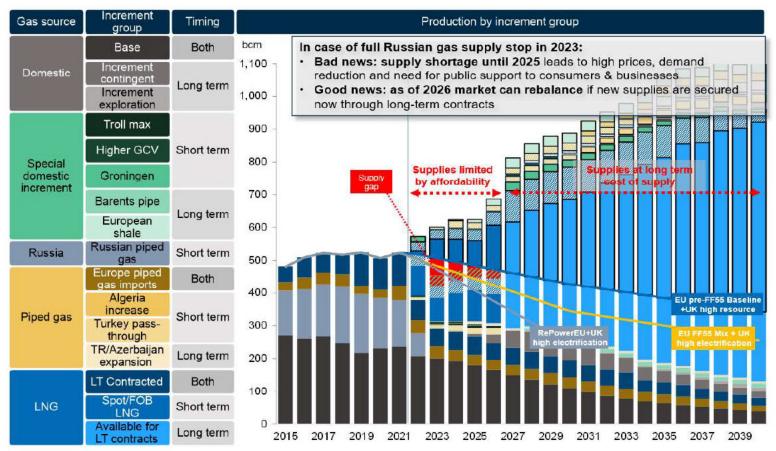


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Europe and Asia compete for LNG supplies from global sources



Source: Rystad Energy research and analysis; Rystad Energy GasMarketCube



Source: Rystad Energy research and analysis, Rystad Energy GasMarketCube, European Commission, UK Department for Business, Energy & Industrial Strategy

EU Green Deal Industrial Plan



European Green Deal Industrial Plan



We welcome:

- Recognition of CCUS as one of the key mitigation technologies
- · Increased funding opportunities

We recommend:

- A technology neutral approach including the role of low-carbon hydrogen in the Net Zero Industry Act (not only fossil-free hydrogen)
- Instruments to streamline permit-granting procedures for CCUS and low-carbon H2



Carbon Capture & Storage



No CCUS, no Green Deal

- · Proven technology, available to be deployed at scale
- Can enable emission reductions in high-emitting industries
- Technology, pipelines, and sufficient geological structures exist to safely capture, transport and store CO2
- Abundant capacity: in Europe, the geological CO2 storage potential assessed at 500 GtCO2

In Europe, there are 72 existing and planned CCUS projects at different stages of development that can store around **80 MtCO2/yr by 2030**.

However, the CCS abatement needs for 1.5°C global target are:

- · 230-430 MtCO2/yr in 2030
- 930-1200 Mt CO2/yr by 2050

Source: https://www.ucl.ac.uk/bartlett/energy/news/2020/dec/carbon-capture-storage-and-utilisation-en-decarbonisation-scenarios-new-report

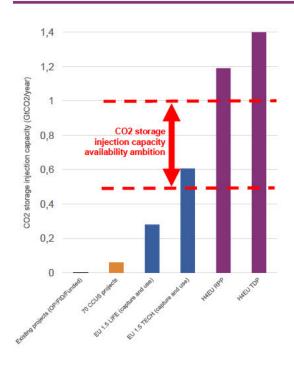


IOGP Europe CCUS Projects in Europe.

The EU needs a plan and vision to scale up CCUS in Europe, including a CO2 storage injection capacity ambition



IOGP CO2 storage injection capacity ambition



 IOGP Europe promotes a CO2 storage injection capacity availability ambition of 0.5 – 1.0 GtCO2 p.a. by 2050

Needed: 0.7-1.0 GtCO2/yr emitted in hard-to-abate sectors only (out of 3.3 GtCO2/y EU emissions)

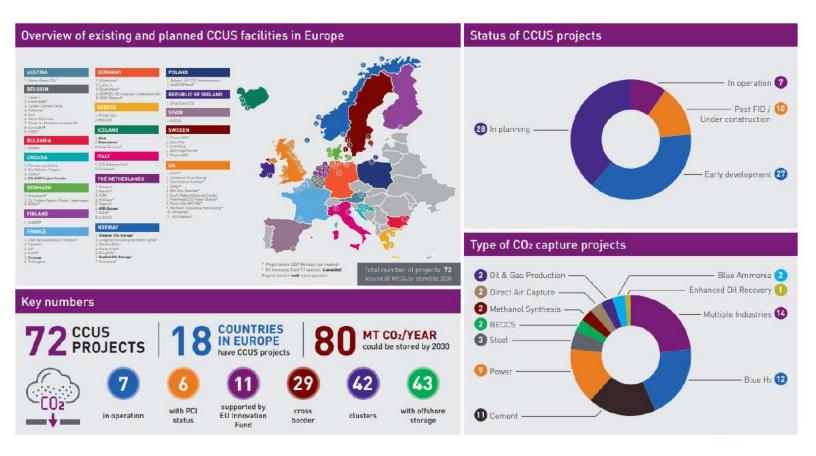
Ambitious: Current projects would store 0.08 GtCO2/yr only by 2030

Realistic: geological storage potential in Europe assessed at 507 GtCO2/y (500 x need)

>Ambition subject to establishment of EU framework which effectively supports and enables the industry to achieve it

- Supporting establishment of CCUS value-chains across Europe
- Addressing commercial risks by complementing / de-risking ETS allowance levels (e.g. through CCfDs)
- Supporting long-term back-to-back contractual arrangements along the value chain; facilitate establishment of CO2 aggregators
- o Remove barriers to project developments, accelerate permitting / repurposing
- o Lessons can be learned from US IRA regarding impacts from effective incentive schemes





Climate Diplomacy



Climate Diplomacy



- G7/G20: Engagement with Japan's G7 presidency
- COP28: Engagement including the preparation of joint initiatives and the organization of pre-COP events
- IMEO: Engagement on Methane Regulation to ensure that the regulation complement existing mature framework
- OECD / IEA: Engagement regarding the Rystad Rebalancing Europe's Gas Supply Study
- OMEC : Observatoire Méditerranéen de l'énergie et le climat

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