

Main matters of concern for market players in some key new EU gas-related documents under discussion

unclear aspects of the suggested regulations and possible contradictory signals to the market including an unclear role of gas in the EU economy decarbonisation

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New EU gas-related documents

> ***Winter package – released 16.02.2016***

- Security of Gas Supply Regulation 994/2010/EC Reform
https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v10.pdf
https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_annexe_proposition_part1_v13.pdf
- Heating and Cooling Strategy – connected with Renewable Energy Directive (2009/28/EC), Energy Efficiency Directive (2012/27/EC), Energy Performance of Buildings Directive (2010/21/EC)
<https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-51-EN-F1-1.PDF>
- LNG and Storage Strategy
https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v10-1.pdf

Gas SoS Regulation (16/02/2016 Reform):

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At the same time the report demonstrated that there are still serious reasons for concern as regards cooperation between Member States (the predominantly national measures they take are not well suited to tackling gas supply problems); application of the supply standard to protected customers (mainly households) and the infrastructure standard. Moreover, gas supply contracts between natural gas companies and non-EU suppliers are not sufficiently transparent. These shortcomings stand in the way of an effective response at moments of crisis.

The stress test conducted in the summer of 2014 showed that a severe disruption of gas supplies from the east (i.e. Russia) would still have a major impact throughout the EU. Some areas, particularly in Eastern Europe, would still suffer severe economic and social consequences in the event of a gas shortage. Moreover the cold spell of 2012 saw wholesale day-ahead gas prices rise by over 50% on 10 January 2012, the highest level ever registered before the cold weather. In Italy, prices rose by 100% on 10 January 2012, the UK, Germany and Austria prices reached 100% on 10 January 2012.

Wrong perceptions could lead far away from real source of problems and give possible contradictory signals to the market

The current situation is the result of a variety of problems of different magnitude, including behavioural biases (a purely national approach to security of supply), external factors (the behaviour of non-EU suppliers) and technical issues (a shortage of appropriate infrastructure, or inadequate protection for infrastructure).

The regulation proposes measures to tackle the deficiencies detected.

Gas SoS Regulation (16/02/2016 Reform):

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- **Collection and use of expertise**

External consultants were used for different topics during the preparation of this proposal. A study was conducted on possible underground gas storage measures and their impact⁷, as well as input from the JRC received to support the Impact Assessment with analyses. A further study comparing approaches to boost the EU's bargaining power on natural gas markets⁸ has provided input into certain policy options related to how to meet the supply standard (common purchasing schemes).

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- (5) The Commission's Communication on the short-term resilience of the European gas system from October 2014¹³ analysed the effects of a partial or complete disruption of gas supplies from Russia and concluded that purely national approaches are not very effective in the event of severe disruption, given their scope, which is by definition limited. This stress test showed how a more cooperative approach among Member States could significantly reduce the impact of very severe disruption scenarios in the most vulnerable Member States.

Gas SoS Regulation (16/02/2016 Reform):

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- **Detailed explanation of the specific provisions of the proposal**

The revised Regulation contains the following components:

1. Better regional cooperation and coordination, as the most cost-effective approach to improving security of supply across the EU:

- Mandatory regional preventive action plans for risk assessment and the

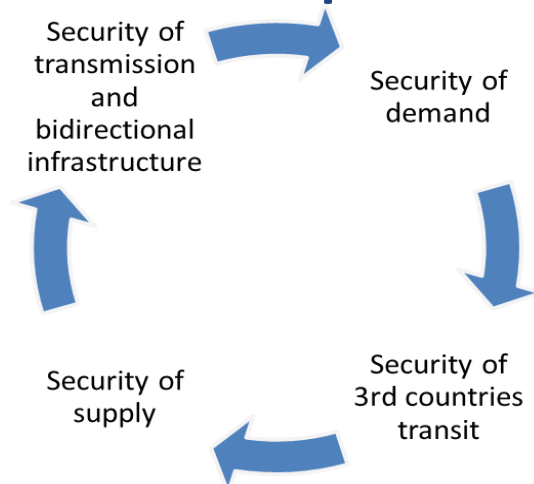
For instance, the North Western region (the UK and Ireland) builds on existing cooperation between the two countries. The rationale for the proposed design of the majority of the regions (Southern Gas Corridor, Central-East, South-East, Baltic Energy Market I and II) is the supply pattern in the event of disruption of the supply from Russia. The make-up of the region North-South Western Europe (Belgium, France, Luxembourg, Spain, the Netherlands and Portugal) reflects the fact that the gas market in this part of the EU is mature and well developed. This may prove to be the best way of avoiding an emergency, or, should one arise, of mitigating its impact.

Gas SoS Regulation (16/02/2016 Reform):

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- (39) In March 2015, the European Council concluded that gas supply contracts with suppliers from third countries should be made more transparent and compatible with the Union energy security provisions. In this context an efficient and targeted mechanism for Member States' access to key gas supply contracts should ensure a comprehensive assessment of relevant risks that can lead to a disruption or interfere with the necessary mitigating measures. Under that mechanism certain key gas contracts should be notified, and after their conclusion the competent authorities should be obliged to provide information on the contract and its content.

Sustainable development cycle



+ (38) – additional information
would typically be non-price-related

but on page 11

Since the request made by the competent authorities or the Commission may cover the contract in its entirety, the competent authorities may also receive information about prices. The Commission can then use the information from the contracts to assess the security of supply situation in the EU as a whole and, in particular, to assess the preventive action plans and emergency plans. If the natural gas company does not comply with the obligation to notify, the Commission may start infringement proceedings against the Member State whose competent authorities have the power to receive or request the contract.

EU STRATEGY FOR LNG AND STORAGE

TO ACHIEVE BENEFITS IN TERMS OF

1

Security and Resilience

Growing supply and low prices present a major opportunity to the EU

2

Competitiveness

Markets become exposed to greater competitive challenges from international suppliers

3

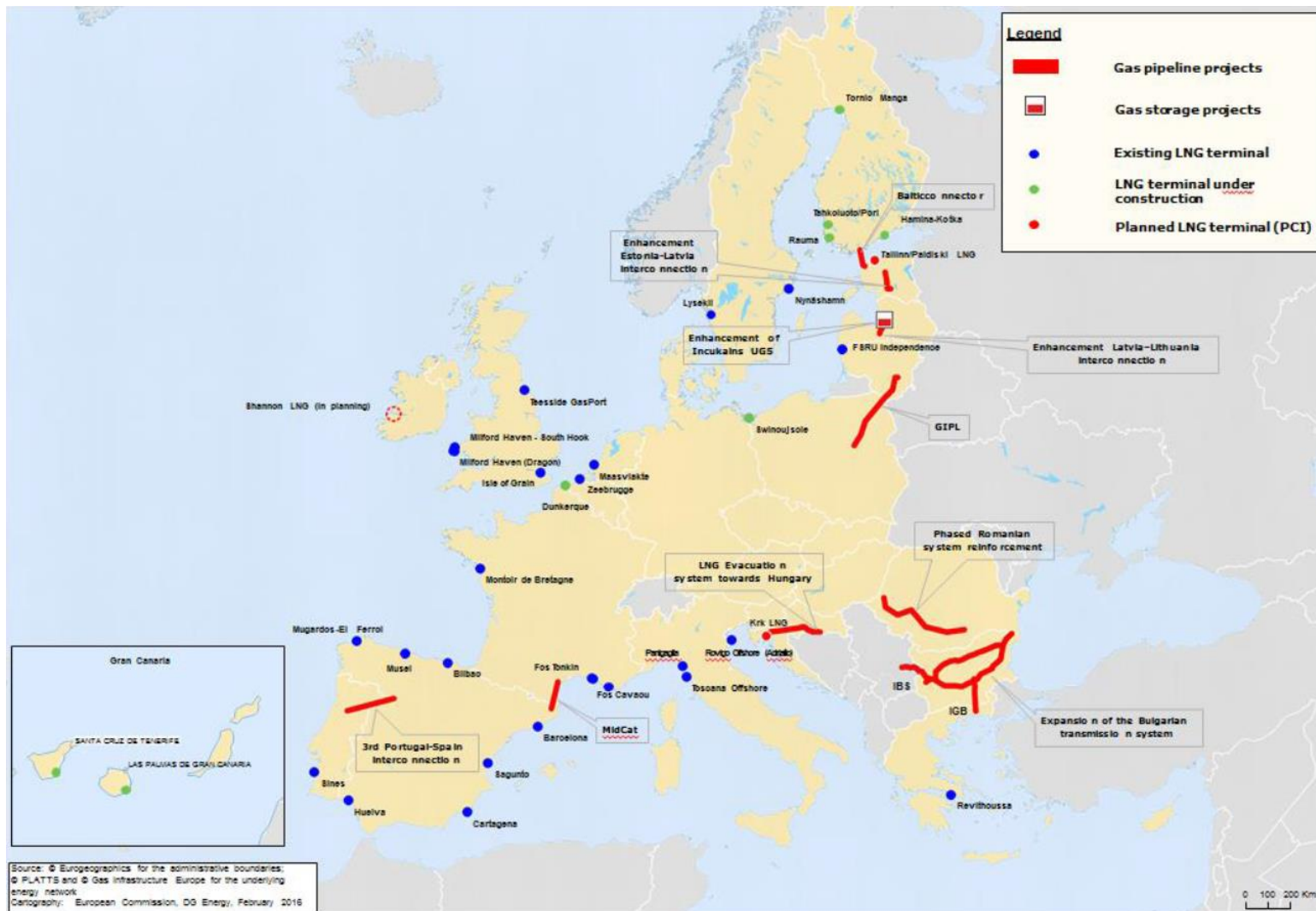
Sustainability

LNG has potential in some cases to reduce environmental impacts, where transport is a key sector

ACTIONS FOR EXPLOITING THE FULL POTENTIAL OF LNG

- **Building the necessary infrastructure to allow ALL Member States to benefit from access to LNG, particularly where overly dependent on a single supplier**
- Building new LNG terminals in the appropriate locations or improving access to existing terminals.
- The Strategy identified a subset of projects, which are to bring real gas security and price competition to EU markets:
 - 6 projects of the Central East South Europe Gas Connectivity group building two main corridors from the Krk terminal towards the east and from Greece to the north;
 - 6 projects of the Baltic Energy Market Interconnection Plan connecting the three Baltic States and Finland to the European network;
 - 2 projects of the South-West Europe high level group eliminating bottlenecks and connecting regional markets.
- Diversification is clearly a leading intention, there is a risk that new terminals would result in additional excess capacity – ‘sunk costs’ and stranded assets

EU STRATEGY FOR LNG AND STORAGE



ACTIONS FOR EXPLOITING THE FULL POTENTIAL OF LNG

- **Completing the internal gas market so that it sends the RIGHT price signals both to attract LNG to where it is needed and to allow the necessary investments in infrastructure to take place**
- National Regulatory Authorities should eliminate remaining regulatory and legal barriers, enable the introduction of new services, including those in relation to new technologies at LNG terminals and continue to enforce transparent and effective market-based capacity allocation mechanism at exempted LNG terminals, so as to attract new entrants to reach EU gas markets
 - The South-West Europe High Level Group should promote connecting the Iberian Peninsula to the internal gas market and allow access to liquid gas hubs;
 - By mid 2016 NRAs are invited to propose an action plan aimed at full opening of the Baltic gas market and creating a single market zone;
 - By mid 2016 NRAs are invited to propose a roadmap to support CESEC process
- **There is some discrepancy between the market reality and regulatory push: enabling of introduction of new services or enforcing capacity allocation mechanism at exempted LNG terminals would have no substantial influence on market/pricing conditions**

EU STRATEGY FOR LNG AND STORAGE

ACTIONS FOR EXPLOITING THE FULL POTENTIAL OF *Operational LNG import points*



Source : ENTSOG , 10.03.2016



- ☒ Projects of common interest (PCI)
- ☒ Terminal for liquefied natural gas (LNG)
 - before 2017
 - between 2017 and 2020
 - after 2020

Source : DG ENER ,
PCI interactive map

ACTIONS FOR EXPLOITING THE FULL POTENTIAL OF LNG

- **Promoting FREE, LIQUID and TRANSPARENT global LNG Markets with international partners (suppliers and major LNG consumers)**
- The EU needs to work closely with international partners and in international fora to ensure that market participants are not prevented from establishing commercial relationships and that there are no limitations on free trade – either under normal market conditions or in the event of external shocks
- The Commission should pursue regular discussions on LNG with Australia and continue to work closely with other current and potential suppliers
- The EU should work closely with major LNG importers to pursue common interest in promoting transparent and liquid LNG markets
- Does this perception for a larger and more liquid global LNG market reflect the reality that regional market set ups and consequently pricing structures differ significantly around the world?

ACTIONS FOR EXPLOITING THE FULL POTENTIAL OF LNG

- **Supporting the growth of LNG as an alternative fuel in TRANSPORT, HEAT and POWER where it replaces more polluting conventional fuels and does not take the place of renewable energy sources, consistent with sustainability goals**
- The Commission calls on Member States ensure full implementation of Directive 2014/94/EU on alternative fuels, including the establishment of LNG refueling points across the TEN-T corridors and at maritime and inland ports
- The Commission is to work on establishing a standardization framework for the development of LNG in shipping
- The overall GHG impact of LNG usage will be affected by methane slip
- Further reduced GHG impacts through the use of liquid biomethane (blending)

EU STRATEGY ON HEATING AND COOLING

COMMISSION IS CALLING ON MEMBER STATES TO FOCUS INCENTIVES ON NON-FOSSIL FUEL BASED H&C TECHNOLOGIES

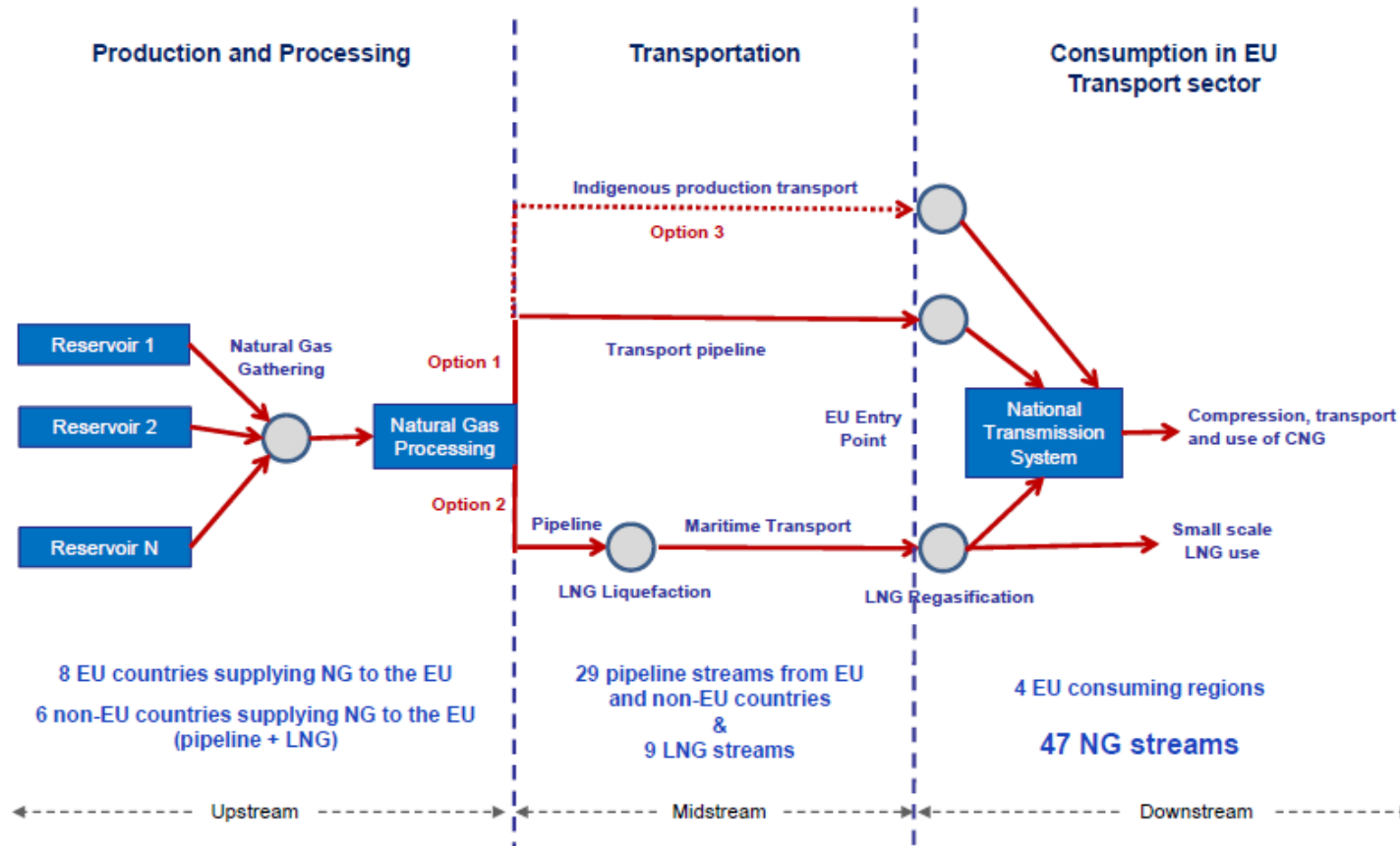
Figure 3: Efficiency rating of new space heating appliances¹³

| | | |
|----------------------|-------------|---|
| Gas Based Technology | | Best Available Technology (BAT) class for space heaters (including packages) |
| | A+++ | Packages using renewables |
| | A++ | Heat pumps (renewable) Best biomass boiler (renewable) |
| | A+ | Gas cogeneration |
| | A | Condensing gas boilers |
| | B | |
| | C | Non-condensing gas boilers |
| | D | Electric resistance |

- Although the heating and cooling sector is moving to clean low carbon energy, 75% of the fuel it uses still comes from fossil fuels (nearly half from gas).
- This Strategy is to contribute to reducing import dependency, where security of supply remains a priority, especially for those who rely on a single supplier.

STUDY ON ACTUAL GHG DATA FOR DIESEL, PETROL, KEROSENE AND NATURAL GAS

Natural gas streams methodological approach



STUDY ON ACTUAL GHG DATA FOR DIESEL, PETROL, KEROSENE AND NATURAL GAS

- Generally the CI is high in gas streams related to long pipelines and/or long distances of transportation as LNG, whether the highest CI have
- Russian NG streams landing in EU North and EU Central
- Algerian LNG streams landing in EU South-East and in EU South-West

Figure 5-14 Carbon Intensities of Natural Gas streams arriving to the Central EU region

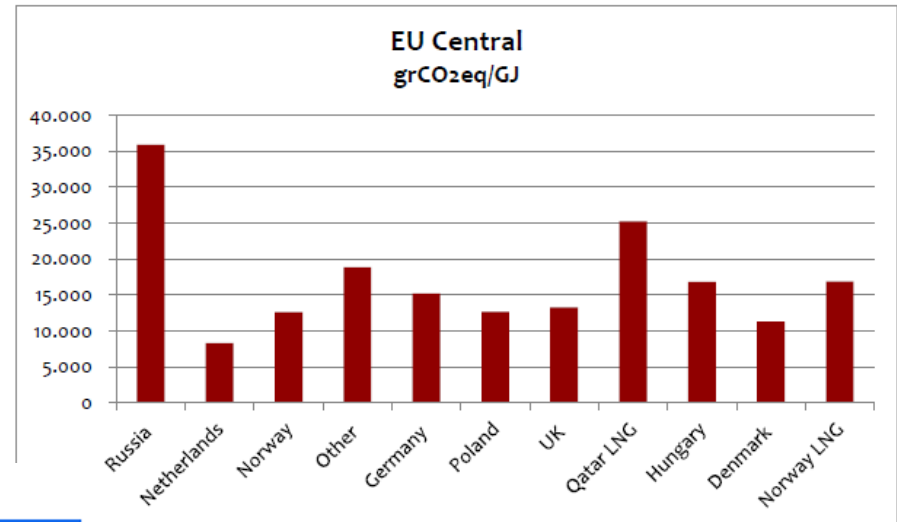


Table 5-26 Minimum and Maximum Carbon Intensities per gas supplying country

| Supplying country | Minimum CI | Maximum CI |
|-------------------------|------------|------------|
| grCO ₂ eq/MJ | | |
| Germany | 12.949 | 21.112 |
| Denmark | 8.076 | 11.268 |
| Netherlands | 6.576 | 13.807 |
| Norway (pipeline) | 9.33 | 17.298 |
| UK | 11.405 | 13.265 |
| Russia | 28.774 | 40.215 |
| Algeria (pipeline) | 19.239 | 29.743 |
| Algeria LNG | 45.136 | 53.557 |
| Norway LNG | 13.49 | 16.873 |
| Qatar LNG | 20.934 | 27.906 |

STUDY ON ACTUAL GHG DATA FOR DIESEL, PETROL, KEROSENE AND NATURAL GAS

- Small-Scale LNG for transport has been presented as a preferred solution in terms of CI
- But this conclusion is based on extremely optimistic assumptions: ssLNG comes directly from LNG streams w/o any liquefaction of pipeline gas within the consuming countries, LNG distributed by truck a distance of 100 km, three transfers with a total gas loss of 0.4%

Figure 9-1 Spread of CI for well-to-tank (CNG) gas streams for EU regions

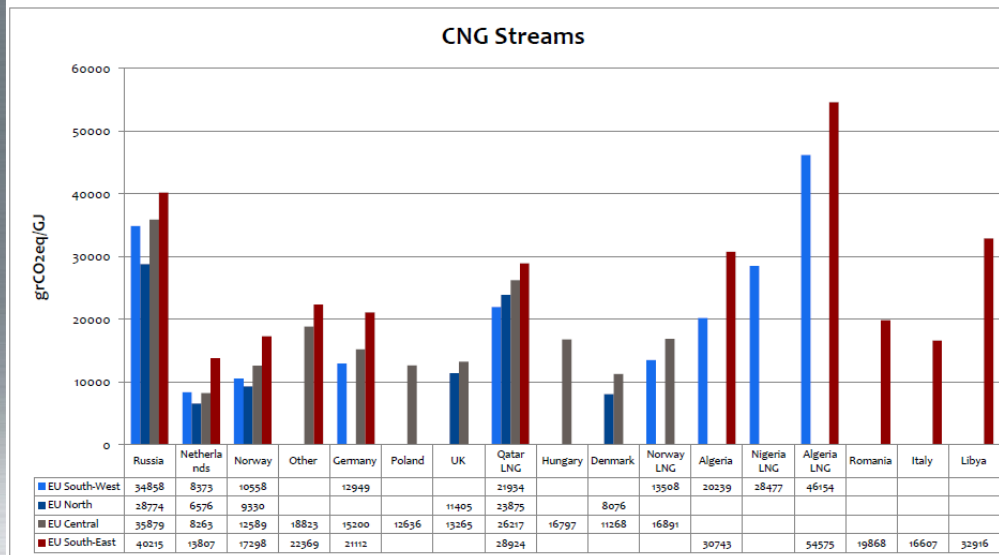
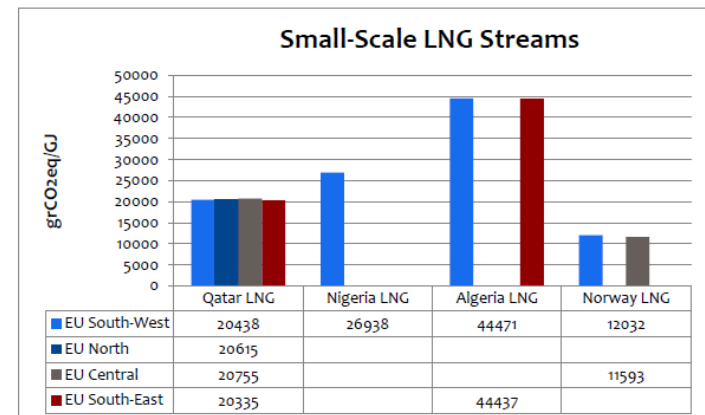


Figure 9-2 Spread of CI for well-to-tank (LNG) gas streams for EU regions



STUDY ON ACTUAL GHG DATA FOR DIESEL, PETROL, KEROSENE AND NATURAL GAS

RECOMMENDATIONS

- Revision of the FQD with a max CI value for fossil fuels that are allowed to be used in the EU – This would mean that the Algerian LNG and some of the Russian gas stream could not be used any more in the EU, if producers and suppliers do not take GHG reduction measures
- Revision of the FQD with a max CI value for fossil fuels that are allowed to be used in the EU with the SoS considerations. For every MJ of fossil fuel used in the EU above the stipulated max level the Member State / commercial entity doing so, would be obliged to use 4 times the equivalent of MJ of advanced renewable liquid biofuels

ROLE OF GAS

- In the dedicated public consultation stakeholders asking the EU to develop an **understanding or vision on the future role of gas**.
- “This should be coherent across policy areas and clearly communicated to the market, and is a pre-requisite for a stable investment environment.”
- “Some stakeholders went further, saying that the EU should favour gas and stress its vital role in the future, thus sending a strong security-of-demand signal and making the EU more attractive as a market for gas/LNG”.

MATTERS OF CONCERN CAUSED FROM TWO STUDIED DOCUMENTS

- There are contradictory signals coming from the EC on the ecological footprint of natural gas and its role in the decarbonisation of the EU economy which impact negatively the investment attractiveness of the European gas industry.
- The exaggerated attention to the dependence on Russian gas (“political issue”) comes up quite often in all documents of the EC, including the predominantly very technical studies. This disproportional focus on the single politicized topic damages significantly the whole gas industry.
- The policy making of the EU Energy Union, especially in gas sector, seems to be fear driven – this counterproductive attitude could bring significant damages to the welfare of the EU and their citizens i.e. will disconnect the sustainable development cycle.
- Upcoming regulation changes will have significant influence on the Role of Gas. (Renewable Energy Package: new Renewable Energy Directive and bioenergy sustainability policy for 2030 and a Review of Directive 2012/27/EU on energy efficiency, etc.) Is that not the right time to combine forces to defend the role of gas?