



GasNaturally's response to the European Commission's public consultation on a Strategy for long-term EU greenhouse gas emissions reductions

General information about respondents

***In what capacity are you completing this questionnaire?**

- ☐ as an individual in your personal capacity
- ☒ in your professional capacity or on behalf of an organisation

***Please give your name if replying as an individual/private person, otherwise give the name of your organisation:** GasNaturally

***Email address:** anna.dubowik@gasnaturally.eu

***For individuals, country of residence; for professionals, headquarters and main country of operations:**

***Type of organisation (please select the answer option that fits best):**

- ☐ Private enterprise
- ☐ Professional consultancy, law firm, self-employed consultant
- ☐ Trade, business or professional association
- ☐ Non-governmental organisation, platform or network
- ☐ Research and academia
- ☐ Social partners
- ☐ National, regional or local authority (mixed)
- ☒ Other GasNaturally is a partnership of six associations that together represent the whole European gas value chain – from exploration and production to transmission, from distribution to transportation. Its members are Eurogas, GIE, IOGP, GERG, Marcogaz and NGVA Europe

***Please indicate the economic sector you are active in (as an individual or as an organisation)**

- ☐ Agriculture, Hunting and Forestry
- ☐ Financial Intermediation
- ☐ Fishing



- ☐ Real Estate, Renting and Business Activities
- ☐ Mining and Quarrying
- ☐ Public Administration and Defence;
- ☐ Manufacturing
- ☐ Education
- ☐ Electricity, Gas and Water Supply
- ☐ Health and Social Work
- ☐ Construction
- ☐ Other Community, Social and Personal Services
- ☐ Wholesale and Retail Trade:
- ☐ Activities of Private Households as Employers
- ☐ Hotels and Restaurants
- ☐ Extraterritorial Organisations and Bodies
- ☐ Transport, Storage and Communications
- ☒ Other : Gas exploration and production, transmission, distribution, utilisation, wholesale and retail operations, as well as gas in transport

***What size does your organisation have?**

- ☒ Micro or small enterprise (10-49 persons employed) GasNaturally does not have any employees
- ☐ Medium-sized enterprise (50 - 249 persons employed)
- ☐ Large enterprise (250 or more persons employed)

***If your organisation is registered in the Transparency Register, please give your Register ID number: 12847789685-76**

***Please indicate your preference for the publication of your response on the Commission's website:**

- ☒ Under the name given: I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication
- ☐ Anonymously: I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication
- ☐ Not at all — please keep my contribution confidential (it will not be published, but will be used internally within the Commission)



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Questions

Long term greenhouse gas emissions reductions

***To achieve its temperature objectives, the Paris Agreement also includes a long term ambition to achieve a balance between emissions and removals of greenhouse gases by human activities in the second half of this century. Given that addressing climate change is a global challenge requiring all parties of the Paris Agreement to act, what do you think the EU should contribute to achieve the Paris Agreement's objectives:**

- ☐ Reduce greenhouse gas emissions in the EU by 80% by 2050 compared to 1990 levels
- ☒ Reduce greenhouse gas emissions in the EU more, within the range of 80 to 95% by 2050 compared to 1990 levels
- ☐ Achieve already a balance between emissions and removals in the EU by 2050

In your opinion, what are the biggest opportunities and challenges? (max 1000 characters)

Opportunities lie in the fact that fast and cost-efficient GHG emission reductions are immediately achievable in industry, power generation, heating and transport by replacing higher carbon fuels with natural gas, and in mid and long-term with increasing shares of renewable and decarbonised gas. The biggest challenges of the energy transition lie in ensuring affordability for consumers and industry which can be minimised by using the existing gas network as the backbone for a reliable energy system with an increasing share of renewable energy as well as backup and storage for variable renewable electricity. Other pressing challenges include removal of electricity and gas sectors silos to support integrated solutions eg. P2G, hybrid heating systems; deployment of CCS and CCU to enable the scaling up of CO₂-neutral renewable and decarbonised gases, as well as carbon negative gas-based solutions; holistic approach to methane emissions reductions including agricultural and waste site emissions.

Consumers N/A

Responses related to consumer choices and individual habits have been provided individually by some of GasNaturally's member organisations.



Employment and a socially fair transition

In the coming decades, the transition to a low carbon economy will impact even more how we work and how we produce goods and services. Which statements below correspond in your opinion to the impact of climate change and the low carbon transition in your working environment?

***Do you expect your company to create or reduce jobs due to the low-carbon transition?**

- ☐ Create
- ☐ Reduce
- ☐ No opinion / I do not know

***What could affect your job most in the future?**

- ☒ The low carbon transition
- ☐ Digitalisation
- ☐ Impact of globalisation
- ☐ Socio-economic policies (for instance fiscal policy)
- ☐ Other

***Do you think you or the sector you are active in would benefit from training of staff in the context of the energy and low carbon economy transformation?**

- ☐ Yes
- ☐ Yes, to some extent
- ☐ No
- ☐ No opinion / I do not know

The impact of the low carbon transition on your sector

***Do you consider the low carbon transition as an opportunity or as a challenge for your sector?**

- ☐ An opportunity
- ☐ A challenge
- ☒ Both
- ☐ None
- ☐ No opinion / I do not know

***Indicate by how much your sector could reduce greenhouse gas emissions by 2050 compared to today?**

- ☐ It cannot reduce
- ☐ Up to half_(upstream)
- ☐ By more than half
- ☐ Can decarbonise entirely_(gas infrastructure)



☐ No opinion / I do not know

***What would be the preferred route to reduce these emissions in your sector?**

- ☐ Further electrify
- ☐ Use other low carbon fuels, like hydrogen
- ☐ Improve to the maximum energy efficiency
- ☐ Circular economy, including recycling and re-use
- ☐ Development of new products and business concepts
- ☒ Other
- ☐ No opinion / I do not know

Comment:

All the aforementioned solutions and routes are supported by the gas industry except for “Further electrify” as we do not believe full electrification is a cost effective solution and will also pose other significant issues. Additionally, our industry is working on the development of renewable gases, Carbon Capture Usage and Storage (CCUS) and on the reduction of methane (CH₄) emissions.

***Will you (or your sector) invest in new low-carbon technologies?**

- ☒ Yes, as a priority
- ☐ Yes, but not as a priority
- ☐ No, it has already invested enough
- ☐ No
- ☐ No opinion / I do not know

***Do you think your sector could be further integrated with others so as to decrease emissions while increasing overall efficiency?**

- ☒ Yes
- ☐ No
- ☐ No opinion / I do not know

**If your sector can be further integrated to others, please mention how and to which sector(s):
200 character(s) maximum**

Examples: Electricity with focus on interface technologies such as CHP, CCGT, P2G, fuel cells, LNG/CNG for road and marine transport, agricultural and municipal waste management for biogas production and reuse of fertilisers; switch-to-gas in district heating; renewable gases and hybrid solutions integrated in the heating sector; hydrogen/natural gas mixtures.



*** Do you think the low carbon transition will lead the EU economy to:**

- ☐ Modernise and reinforce its competitiveness
- ☐ Modernise, and reinforce its competitiveness, but only if non-EU countries and regions also engage in the transition towards a low carbon economy
- ☐ Lose competitiveness
- ☐ No opinion / I do not know

***Do you think the low carbon transition can help the EU industry modernise and grow?**

- ☐ Yes
- ☒ Yes, but only with public support AND
- ☒ Yes, but only if non-EU countries and regions also engage in the transition towards a low carbon economy
- ☐ No
- ☐ No opinion / I do not know

***How can opportunities and challenges (in particular related to carbon intensive sectors or regions) be addressed? What key economic transformations should the EU pursue to achieve a low carbon and resilient economy?**

1000 character(s) maximum

- A coal-to-gas shift, wherever possible, as a immediate tool for regions that are heavily dependent on coal usage to reduce CO2 emissions and improve air quality.
- Switching fuels to renewable and low carbon gases.
- Developing CCUS to enable growth of hydrogen production from natural gas and to minimize the carbon footprint of energy-intensive industries such as the steel, cement refining, and chemical sector, and help retain their role in a lower carbon EU economy. CCS can also be applied to gas-fired power plants, turning them into carbon-free and flexible sources of electricity. The Strategy should consider the impacts of different ambition levels between regions and countries in the world on competitiveness of the EU industry sectors by providing carbon leakage protection.

Energy

The energy system today is responsible for ca. 75% of the EU's greenhouse gases emissions and undergoes a rapid transition due to e.g. cost reduction of renewables, improvements of energy-efficiency and rapid development of new technologies (e.g. batteries) driven i.a. by policies put forward by the EU and its Member States. Accelerating this change will play a central role in the transition of our economy towards a carbon-neutral economy.

***In the following table listing different energy technologies, please rank each option in the table below from 1 (important) to 5 (not important) on what role you think they will play in the clean energy transition (not all options need to be ranked)?**



- *Energy efficiency reducing the need to produce energy
- *Renewable energy from wind, solar or hydro
- *Other forms of renewable energy, like geothermal, wave or tidal
- *Nuclear energy
- *Fossil fuels with Carbon Capture and Sequestration
- *Solid biomass for heat and electricity production
- *Advanced Liquid Biofuels
- *Biogas from agricultural and domestic waste
- *Electricity storage (e.g. batteries)
- *Hydrogen (produced in a carbon-neutral manner)
- *E-fuels derived from hydrogen
- *Other

***If other, please specify:**

Policy should be technology neutral as it is almost impossible to predict what developments will take place over the next few decades. Undue support for one particular technology runs the risk of undermining the efficient working of the internal market and imposing unnecessary cost on consumers

***What are the biggest opportunities, including for the wider economy? What are the biggest challenges, including as regards public acceptance or the availability of land and natural resources, related to these future developments?**

2000 character(s) maximum

According to the IEA, natural gas can play a significant role in delivering the objectives of the Paris Agreement with gas expected to be 24% of EU energy demand in 2040, so making the energy transition more sustainable and hence contribute to the welfare of EU citizens. Wider utilization of gas in the EU economy can bring such benefits as reduced emissions by up to 60% in comparison to other hydrocarbons as well as significantly improved air quality in the EU. Moreover, extensive resources within the EEA provide secure, reliable and affordable access to this fuel. Development of these resources can provide significant revenues for European governments and work for



Europeans. Natural gas should therefore be considered by the EU as the “fuel of choice” for achieving climate objectives and ensuring a resilient, sustainable and clean economy. Additionally the IEA study foresees that further gains in terms of CO₂ limitation could be achieved by Carbon Capture and Storage (CCS). This technology could provide 14% of the cumulative emission reductions needed in the period to 2060 to limit future temperature increases to 2°C and 32% of the additional reductions needed for the Beyond 2°C Scenario (B2DS). Studies show considerable potential for creation and retention of high-skilled jobs linked to development of a European CCS industry.

The market potential for renewable and decarbonised gas should be assessed at the EU level to compare different scenarios of cost development, prices and usage of the different forms of gas, including hydrogen from natural and renewable sources. This study should consider what interim funding may be necessary to make the development of scalable renewable and decarbonised gas competitive. Renewable gas production could play an important role in a modern circular economy. In addition to municipal and agricultural waste also sewage, forestry and organic industrial residues can be used to produce gas, which also produces bi-products that enhance agricultural yield, while providing positive economic returns for local territories and populations, and reducing the dependency on imports. This circular effect needs to be factored in when assessing long-term viability of gas grids while also taking into account that the use of existing infrastructure reduces the overall cost of energy transition.

Currently, the Connecting Europe Facility and Projects of Common Interests only support cross-border CO₂ transportation elements of Europe’s CCS projects. Alongside the support for green hydrogen and biomethane, blue hydrogen should be recognised as an enabler for the decarbonisation of natural gas, industries and of the existing gas infrastructure, and CEF and PCI lists should facilitate this transition by providing support to hydrogen transport infrastructure, while not jeopardizing support to extension of natural gas infrastructure.

The role of Forests and Land Use

*Today, EU's forests, agriculture and land absorb more CO₂ than they emit, which is referred to as the EU's sink. Forests and agriculture land produce renewable biomass that can be used to substitute other carbon intensive products or to produce bioenergy, which in turn reduce greenhouse gas emissions from fossil fuels and industrial processes. Depending on how this biomass is produced, this can impact the size of the EU's sink, as well impact other services delivered by agriculture and forest land including biodiversity and ecosystem services.

***In the context of a long term strategy please rank each land-use activities in the table below from 1 (important) to 5 (not important) to indicate which are acceptable and can be important to reduce greenhouse gas emissions and increase CO₂ absorptions (not all options need to be ranked):**

	1	2	3	4	5
*Forest as a source for biomass for renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Forest as a source of material for bio-based products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



- | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| *Forest as a carbon sink storing CO ₂ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| *Agriculture as a source of feedstock for bio-based materials | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| *Agriculture as a source for bio-energy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ◦ based on food crops | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ◦ based on agricultural wastes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ◦ based on woody biomass (e.g. perennials, woody and herbaceous crops, short rotation coppice) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| *Protecting and enhancing soil carbon stocks on agricultural land | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

***What should be the role of the land-use sector in reducing emissions and increasing absorptions emissions? For what purposes should biomass be used most to reduce greenhouse gas emissions? How and which sustainability concerns should be addressed?**
1000 character(s) maximum

Policy should be technology neutral as it is almost impossible to predict what developments will take place over the next few decades. Undue support for one particular technology runs the risk of undermining the efficient working of the internal market and imposing unnecessary cost on consumers

Education, research and innovation

Considering the long timeframe of the strategy, and the inherent magnitude of the decarbonisation transition, the central role of accelerating research and innovation for facilitating this transition will be crucial.

***How best could awareness be raised to create the right attitude and values/ mind-sets?**

at most 3 choice(s)

- ✓ At school through education
- ✓ Local and regional campaigning
- ✓ National and EU wide campaigning

***On which sectors should R&D efforts focus primarily in the coming decade to best support the low carbon transition?**

at most 6 choice(s)

Injection and utilisation of renewable gases.

Industrial processes

Transport

IT



***On which cross-sectoral domains should R&D efforts focus in the coming decades? Is there a particular need for large scale deployment of certain innovative technologies? Is there a different role for authorities and private sector in support R&D and Innovation?**

1000 character(s) maximum

Expansion of R&D&I programs for all promising technologies with long-term CO₂ and other GHG and air pollutants reduction potential should be promoted, while a technology-neutral approach should be maintained, as a key driver of this framework. These technologies include: natural gas-to-hydrogen, power-to-gas, bio- and synthetic methane, CCS and CCUS. See the responses of GasNaturally's members for details.

Financing

In many cases, the low carbon economy and energy transition needs high upfront investments with subsequent reductions in operating and fuel costs. In addition, this transition as well as climate change itself will most likely affect the value of existing investments and assets of companies. Finally, to achieve the transition efficiently, the viability and profitability of investments need to be ensured on the long-term. Most of these investments will have to be funded via private finance.

***Will the sector that you are active in require significant additional investment in the context of a transition to a low carbon economy?**

☒ Yes

☐ No

☐ No opinion / I do not know

***For the sector that you are active in, is there a financing gap for making the transition to a low carbon economy?**

☒ Yes

☐ No

☐ No opinion / I do not know

***Should public sector be more involved in ensuring adequate financing for the low carbon transition?**

☐ Yes, through direct investment

☒ Yes, through measures ensuring more low-cost finance for sustainable investments

☐ No because of the risk of prompting inefficient investment leading to stranded assets

☐ No because of crowding effects on other sectors

☐ No opinion / I do not know

***Would you consider that, in your sector, companies are sufficiently transparent about the financial risks they face due to climate change and the low carbon economy and energy transition?**



- ☒ Yes
- ☐ No
- ☐ No opinion / I do not know

Meta trends

***Do you think the following trends are important to reduce greenhouse gas emissions.
Economic transition towards a more circular economy?**

- ☒ Positive
- ☐ Negative
- ☐ Neutral

***Digitalisation, including robotisation and artificial intelligence?**

- ☒ Positive
- ☐ Negative
- ☐ Neutral

***Shared economy?**

- ☒ Positive
- ☐ Negative
- ☐ Neutral

***Further interdependency of sectors across borders through globalisation?**

- ☒ Positive
- ☐ Negative
- ☐ Neutral

Actors

Local authorities such as cities and local communities, as well as other actors such as civil society and the private sector, can play an important role in achieving the energy transformation, reducing greenhouse gas emissions and adapting to climate change. Indeed thousands of cities, companies and citizens' organisations are implementing the low carbon economy and energy transition through projects covering energy, transport, food and waste management, often achieving important local co-benefits related to economic development, health and wellbeing.

***Which of these non-state actors do you think will impact most your or your sector's contribution to delivering the EU's ambition to become a low carbon economy?**

- ☐ Regional government



- ☐ Towns and cities
- ☒ Businesses
- ☐ Philanthropies
- ☐ Civil society (NGOs, ..)
- Religious groups

Adaptation

The adverse effects of climate change will increase in the coming decades unless strong mitigation policies are implemented globally. In your place of living, which of the following actions do you think will be necessary to prepare for the likely effects of climate change?

***Please rank each option in the table below from 1 (important) to 5 (not important) to indicate which, in your place of living, you think will be necessary to prepare for the likely effects of climate change (not all options need to be ranked).**

	1	2	3	4	5
Scientific research on the local effects of climate change in the place where you live	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reinforcement of infrastructure (transport, energy, communication networks) to withstand natural disasters		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preparation for floods (water retention, dykes, designated flood plains/areas, restriction of activities in areas at flood risks, floating houses etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adaptation of agriculture to the changing climate (e.g. water efficient irrigation, selecting different crops)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat wave action plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase of green areas in towns to cope with heatwaves / floods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encouragement of water saving and reuse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forest fire prevention (e.g. awareness raising campaigns, forest management...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reinforcement and protection of the seacoast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Early warning systems for natural disasters (heatwaves, floods, forest fires...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication to the public about the need to adapt to climate change		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved insurance products against damage from the effects of climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better understanding of the security effects of climate change on the EU (e.g. flows of migrants, global water and food scarcity, agricultural trade)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Specific sectoral questions

These questions are focused on sector specific greenhouse gas reduction options, and as such are primarily directed to sectoral stakeholders.

Please refer to GasNaturally members' responses for the answers to these questions.

***What main barriers do you see currently preventing the large scale deployment of CCS, including on how to use it to generate negative emissions? What are the particular challenges related to biomass CCS? What type of CCU (Carbon Capture and Utilization) would lend itself to create long term storage? Are there other technologies that should also be considered? What policies do you think the EU should pursue to better help development and deployment? 1000 character(s) maximum**

The key challenges for CC(U)S include the lack of a business case for large scale deployment, localised public acceptance issues, necessity to develop a sound methodology to estimate storage capacity at EU level, and the lack of a clear EU regime for long-term financial liability related to storage sites. The Innovation Fund, Horizon Europe and SET Plan should be implemented in a way that fully recognise the role of CCUS to enable the business case and ensure large scale demonstration of CCUS in Europe.

Additional Comments

If you wish to add further information, comments or suggestions - within the scope of this questionnaire - please feel free to do so here:
1000 character(s) maximum

Quick wins are still possible

Natural gas has been a key factor in reducing EU emissions from energy use since the 1960s. Further quick wins are readily available:

- Switching today from coal-fired power plants to gas-fired installations (The contribution of fuel switching is also an important result of a Eurogas study on the sustainable credentials of gas using PRIMES).
- Accelerating the further deployment of condensing gas heating boilers throughout the major European gas heating markets to achieve the same efficiency savings that this technology has delivered in the Netherlands and the UK.
- Gas CHP (micro, mini or large) to lower residual electricity demand.
- Wider deployment of CNG, LNG and hydrogen fuelled vehicles.

These quick wins would also provide time to roll out new options toward 2050.

CO₂-neutral gas fuels in the long-term low-carbon economy



Decarbonised and renewable gases can play an important role in the decarbonisation of all energy and industry sectors. Challenges should be addressed as follows:

- Full life-cycle emissions analysis, creating greater transparency for policy-makers and consumers on the sources of emissions, including the mobility sector.
- A technology-neutral approach to carbon abatement options for vehicles and heating.
- Financial support at EU level and in Member States for RD&D to accelerate, mature and deploy new technologies for the production of renewable and decarbonised gas, and for the optimisation and future-proofing of existing infrastructures.

Please see enclosed the 'Vision of the European Gas Industry' pdf. + Manifesto