

26th World Gas Conference

1 – 5 June 2015 – Paris, France



TF2.2 Relationship between coal and gas session (4 June 2015)

Calling for a Coal-to-Gas Shift in Europe

François-Régis Mouton, Chairman
GasNaturally

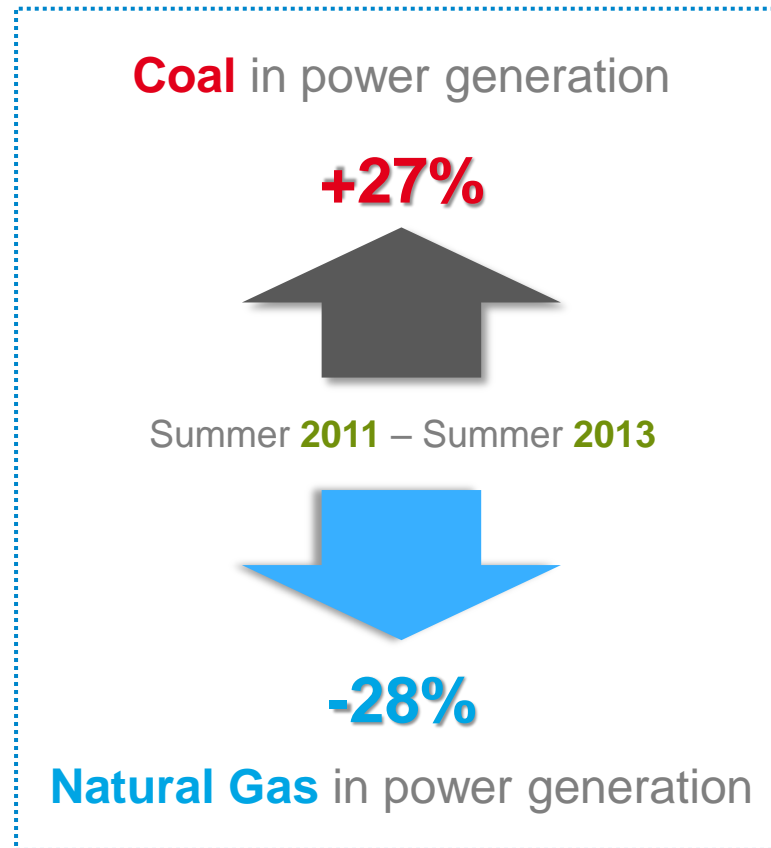


Setting the Scene



The Black & Green Paradox

The entire world
loves Gas



Except Europe

Source : ENTSOG Winter Supply Outlook 2014/2015

A Challenging Context for Gas

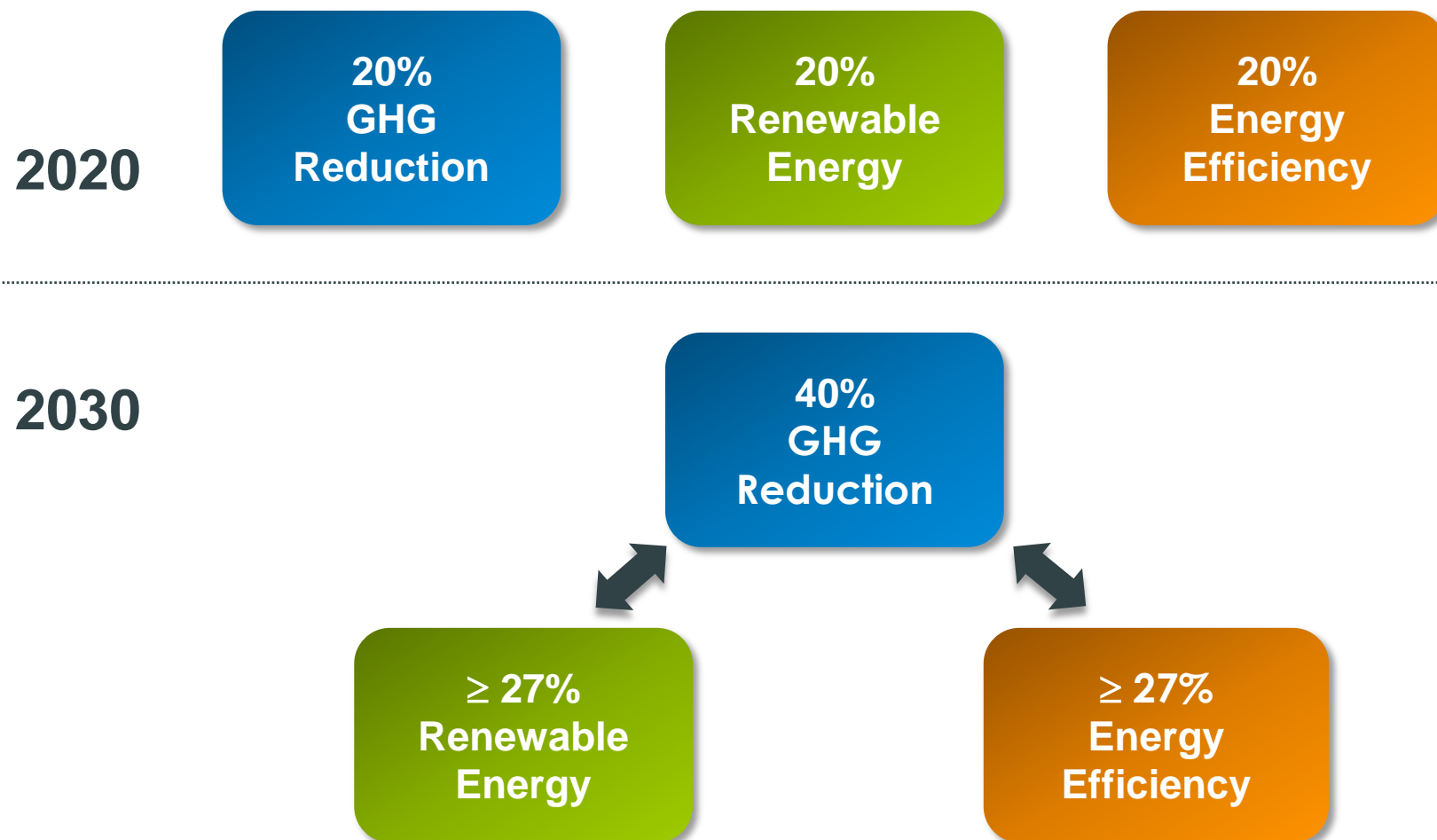


*Gas,
Clean, Efficient,
Everywhere.*

The world loves gas

- Europe should too -

EU Energy & Climate Targets



3 Energy Policy Priorities

Competitiveness



Security of supply

Sustainability

3 Perception Challenges for Gas

« GAS IS EXPENSIVE »

Competitiveness



Security of supply

Sustainability

« WE CANNOT RELY ON
RUSSIAN IMPORTS »

« GAS IS JUST ANOTHER
FOSSIL FUEL »

Solutions proposed...

Using less Gas



1% increase in energy savings cuts gas imports by 2.6%”

Communication on the Energy Union Package, 2015

Switching from gas to electricity in heating



“Accelerate [the] fuel switch in the heating sector to renewable heating technologies in order to displace significant amounts of imported fuels”.

Communication of the Commission on Energy Security, 2014

Challenges to overcome

Market losses in power generation

Gas power plants closing down

Heating sector also at threat

Low traction for gas in transport

Perception issues

Shale gas questioned

Coal Lobby Communications Strategy

**Coal: abundant,
affordable and available**

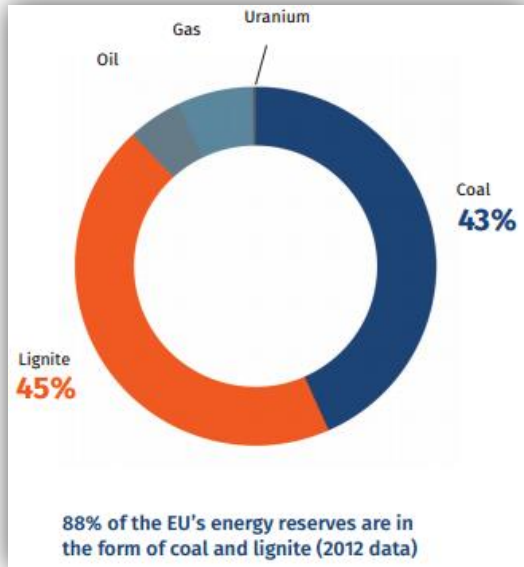
EURACOAL
European Association for Coal and Lignite

Coal: flexible energy

Flexibility of conventional power plants

Coal-fired power plants are every bit as flexible as gas-fired power plants: the latest plants can ramp up or down at a rate of 30 MW every minute over a range of 500 MW or more

Source: RWE



**Coal: a 3-step strategy
for clean energy**

1

Introduce state-of-the-art technology across the EU coal-fired generation sector to boost efficiency and reduce emissions

2

Develop the next generation of high-efficiency flexible technologies for coal-fired electricity generation

3

Demonstrate and deploy CO₂ capture and storage at coal-fired power stations around the world

Opportunities

Renewables integration: need for flexibility in the system

Clean urban transport: air quality credentials

Shipping: Huge market potential for LNG to meet low-sulphur standards

Global LNG market liquidity: price convergence, diversification of sources

Energy efficiency: conversion of conventional boilers; gas heat pumps 90% efficient

Our Objectives



Unifying the Gas Supply Chain



GASNATURALLY: ONE VOICE FOR GAS

6 ASSOCIATIONS

275 ENTITIES INCLUDING 150 COMPANIES



RESEARCH & DEVELOPMENT



TECHNICAL LEGISLATION & STANDARDISATION



EXPLORATION & PRODUCTION



TRANSMISSION, STORAGE AND LNG REGASIFICATION



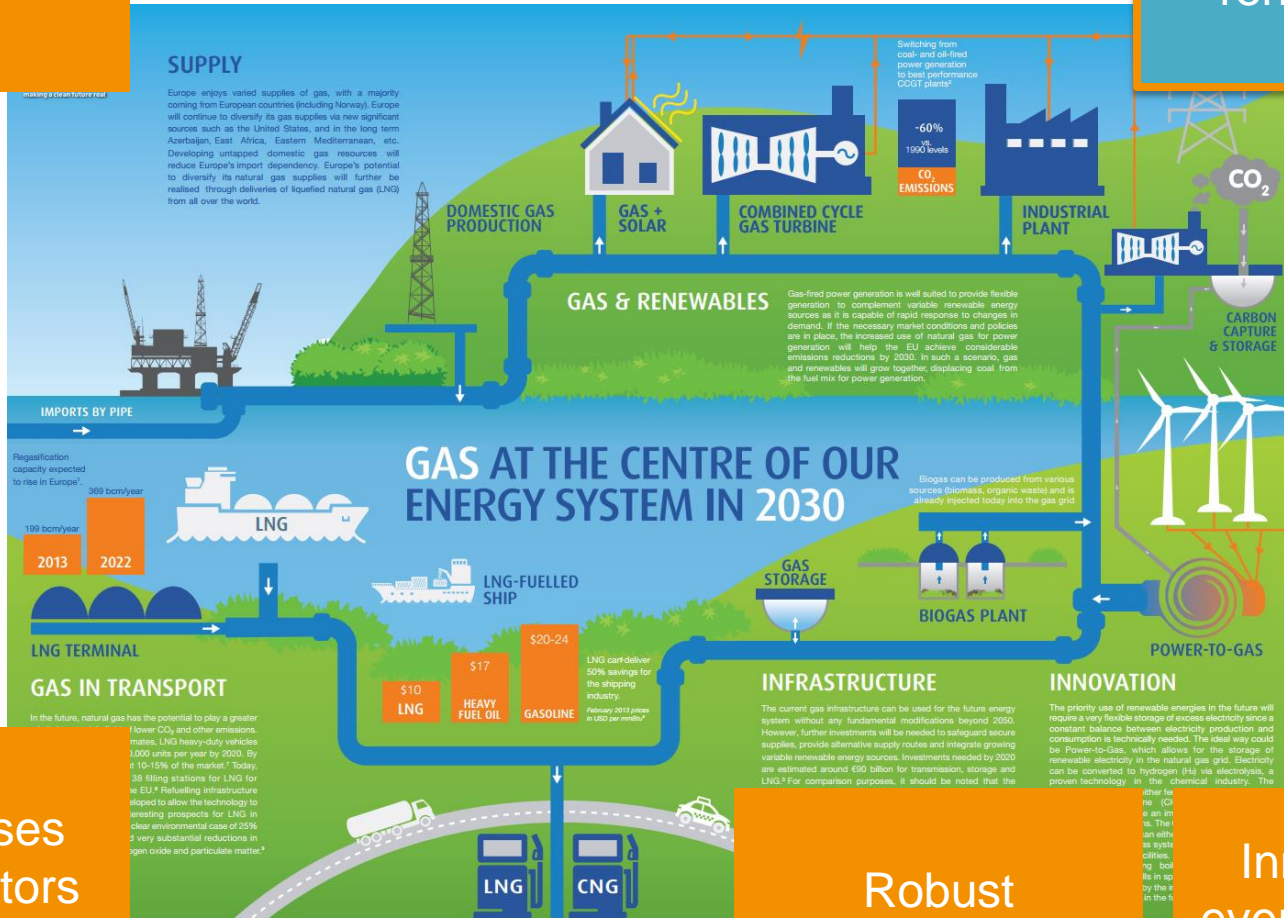
RETAIL AND DISTRIBUTION



Showing the role of gas in future energy system

Diverse supplies

Partnering with renewables



Multiple uses across sectors

Robust infrastructure

Innovation at every step of the chain

Partnering with Renewables

Variability vs. Flexibility

Finding way out of coal lock-in

Looking for new power market design

Remunerate flexibility?

Making joint proposals

FIGURE 2: SHARE OF NEW POWER CAPACITY INSTALLATIONS IN EU (MW). TOTAL 26,975.5 MW

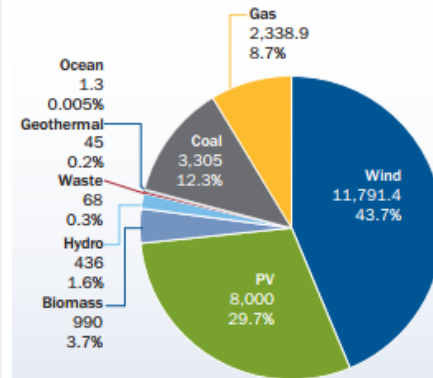
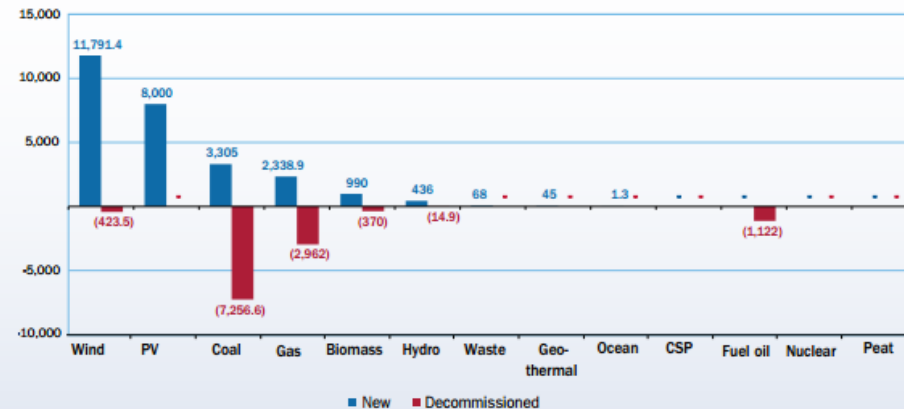
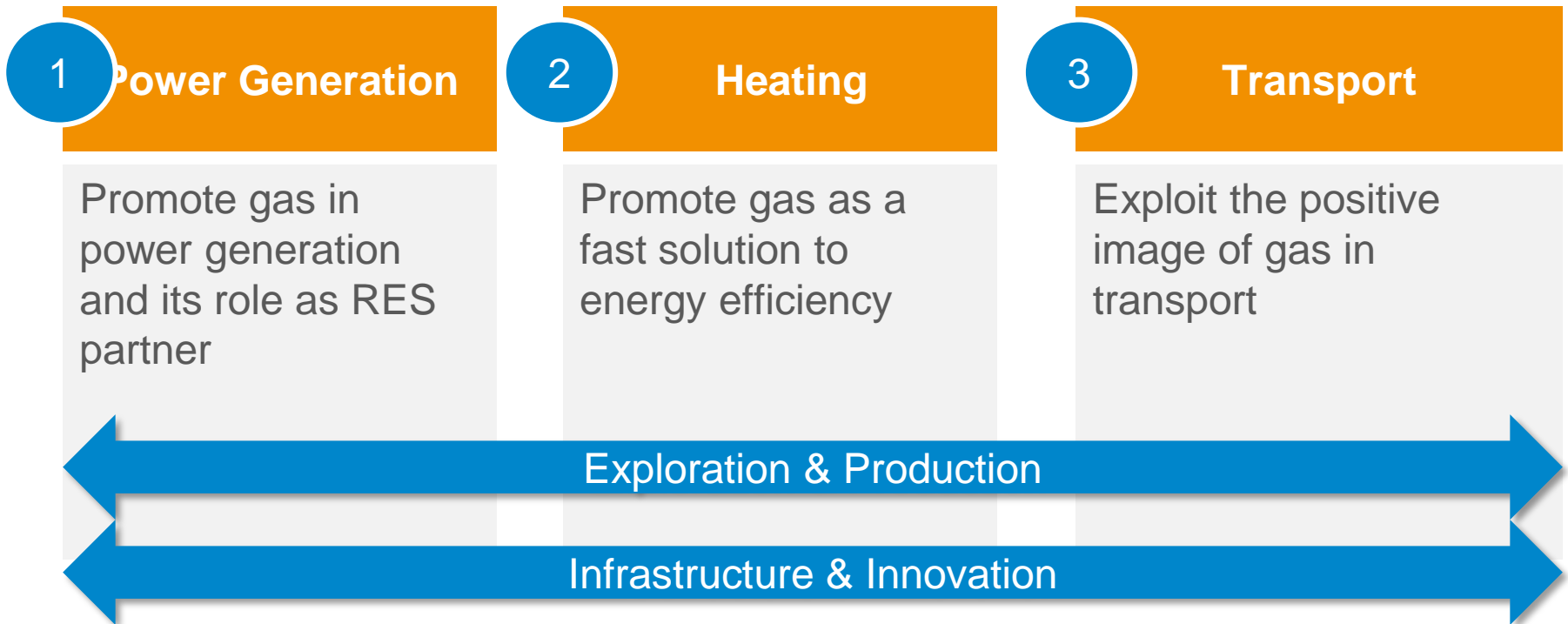


FIGURE 3: NEW INSTALLED CAPACITY AND DECOMMISSIONED CAPACITY (MW)



Promoting Gas Across Sectors



What we do



From Raising Awareness to Formulating Policy Asks

2012	2013	2014	2015
<ul style="list-style-type: none">• Common umbrella for industry messages & identity• Intermittent• Too focused on “gas” benefits• Broadcasting	<ul style="list-style-type: none">• Common umbrella for industry messages & identity• Baseline activities over year• Beginning of political narrative/policy asks• Broadcasting	<ul style="list-style-type: none">• Common advocacy and communications platform• Political narrative with a long-term vision for 2030 & policy asks• Building relationships• Brussels+• Engagement as driver of change	<ul style="list-style-type: none">• Common advocacy and communications platform• Political narrative with detailed policy asks in each sector (heating, transport, power generation)• Strengthening relationships• Brussels+• Engagement as driver of change

A GROWING VOICE IN THE EUROPEAN ENERGY DEBATE

3 Key Political Arguments For a Coal-to-Gas Shift

- Decarbonisation

Lignite
1200-1600
gCO₂/kWh

Coal
900
gCO₂/kWh

Natural gas
400
gCO₂/kWh

- Air quality

80% less NO_x
than coal

99,99% less
particulate
matter than
coal

- Flexibility

Start-up time from cold

Coal-fired
power plant
6 hours

Lignite-fired
power plant
10 hours

CCGT
30 to 60
minutes

OCGT
10-20 minutes

Motors
Instant Start

Establishing Common Messages

■ A clear message to policymakers

Policy Priorities
2014-2019

GASNATURALLY'S POLICY ROADMAP TO 2030

GasNaturally is confident that with the right policy decisions that allow gas to play its full role in the energy mix, Europe can reach 2030 having satisfied the objectives of security of supply, competitiveness and sustainability.

The following points should be taken into consideration:

- One single legally binding, economy-wide GHG reduction target for 2030 would provide the predictability needed to make long-term investments in low-carbon technologies.
- To address the current imbalance between demand and supply in the EU ETS, structural measures should be adopted to reform the ETS and ensure its long-term stability. The ETS is the central instrument for cost-effective GHG reductions achieved in a technology-neutral manner.

- GasNaturally advocates the phase-out of support schemes for technologically mature renewables, without retroactive effect, and continued technology-neutral support for all promising, non-mature low-carbon technologies.
- Whilst ensuring a level playing field, the EU should propose policies that enable gas to develop its full potential in reducing GHG emissions cost-efficiently. Such policies should encourage a switch from coal to gas and renewables.
- GasNaturally advocates a policy framework that supports research and development of all promising, non-mature energy technologies that seek to lower GHG emissions.

Letters to Heads
of States



Dear Head of State or Government, Dear President of the European Council,

In anticipation of the upcoming discussion at the European Council meeting about energy and climate we would like to share some proposals that address these issues.

We are writing on behalf of GasNaturally, a partnership of six associations representing over 130 natural gas companies from all segments of the gas value chain.

Europe seeks a secure energy supply, a competitive economy and a low-carbon energy system. Measures currently under discussion risk missing these objectives or are even counter-productive. Some of the existing proposals concentrate solely on reducing energy imports and, in so doing, reduce the share of gas in the EU energy mix, thus decreasing diversity and flexibility. Furthermore, 11 questions about the EU's commitment to free trade and sends a negative signal to the gas industry. The EU is also seeking investment in new gas infrastructure so that all Member States can enjoy diverse and reliable gas supply.

The EU needs a consistent 2030 climate and energy policy. For this reason, we recommend the following:

1. **Opt for a single legally-binding 2030 greenhouse gas (GHG) emissions reduction target for the Emissions Trading System.** A single target is the most cost-effective way of reducing emissions as it would create predictability for long-term investments in all lower carbon technologies.
2. **Promote a gas + renewables partnership.** This will reduce Europe's emissions by 10% by 2030. A switch from coal to gas and renewables in power generation. The results would be better air quality (less SO_x, NO_x and particulates) and lower CO₂ emissions. Gas can also reduce emissions cost-effectively in the heating sector: switching to modern gas condensing boilers alone increases efficiency by 20%, compared with the vast majority of boilers in use today. Moreover, it can be used in the transport sector, in particular to help the shipping industry to meet more stringent emissions targets. Last but not least, gas can be renewable itself through the use of biogas injected into our gas networks.
3. **Support efforts to explore and produce more gas in the EU with appropriate environmental regulatory and fiscal policies.** This would boost both conventional and unconventional gas exploration and production and improve the EU's security of supply – which in turn would stimulate industrial development and job creation.
4. **Support R&D to bring promising low-carbon power-to-hydrogen and power-to-gas, to the market, would shape**

October 2014

To: Heads of State and Government of the European Union, President of the European Council

Brussels, 17 March 2014,

Dear President, Dear Prime Minister, Dear President of the European Council,

In view of the upcoming discussion on the 2030 Energy and Climate Framework at the European Council meeting, GasNaturally – a partnership of six associations representing over 130 natural gas companies from all segments of the gas value chain – would like to share with you some of our proposals for a more competitive Europe.

The 2030 policy framework had unintended consequences: long-lasting subsidies for already mature renewable technologies, and high energy prices which have burdened the EU economy and damaged the purchasing power of EU citizens. Subsequently, cheap coal imports have resulted in higher than expected emissions of CO₂ and other harmful air pollutants (SO_x, NO_x and particulates). This new 'coal and renewables paradigm' has offset the benefits of the expanded renewables capacity at a high cost to both the economy and the environment.

Now, you have the opportunity to change the situation.

The EU should first of all opt for a single legally-binding 2030 greenhouse gas emissions reduction target. This would provide predictability for long-term investments in lower carbon technologies – renewables and gas alike – and reduce emissions in the most cost-effective manner. At the same time, the EU should step up its efforts to reach a global climate agreement in Paris in 2015.

Secondly, the ETS should remain the central EU mechanism for cost-effective CO₂ emissions reductions. We encourage the Council to reach early agreement on creating the right conditions to allow for a switch from coal to gas in power generation, as well as appropriate measures in the non-ETS sector.

Thirdly, the power system should be redesigned to allow gas and renewables to better partner in electricity generation, helping the completion of the Internal Energy Market. Subsidies for mature renewables should be phased out, while maintaining R&D support for all promising, non-mature low-carbon technologies, including CCS and power-to-gas.

With these three proposals, the EU can achieve the goals of its medium- and long-term energy and climate policy. Otherwise it will drift away from its objective of a prosperous and sustainable Europe.

We hope, dear President/Prime Minister, that these few points will help take forward the upcoming debate.

Yours sincerely,

François-Régis Mouton
Chairman of GasNaturally

Beate Raabe
Secretary General
Europegas

David Salisbury
President of European Gas
Research Group (EGRG)
CEGR

Jean-Claude Degail
President of Gas Infrastructure
Europe (GIE)

Marc Florin
President of MARCOGAZ

Gordon Strath
Chairman of Management
Committee of OGP

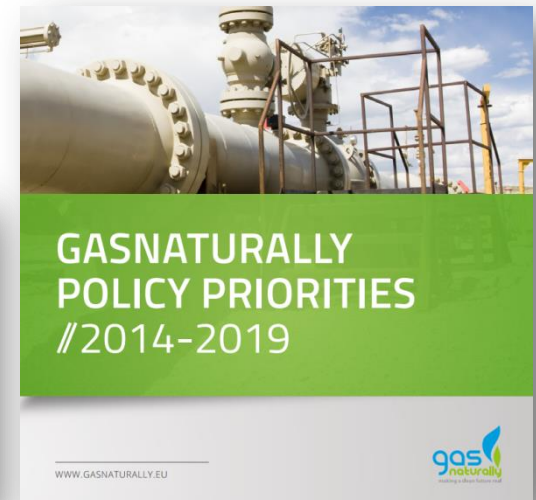
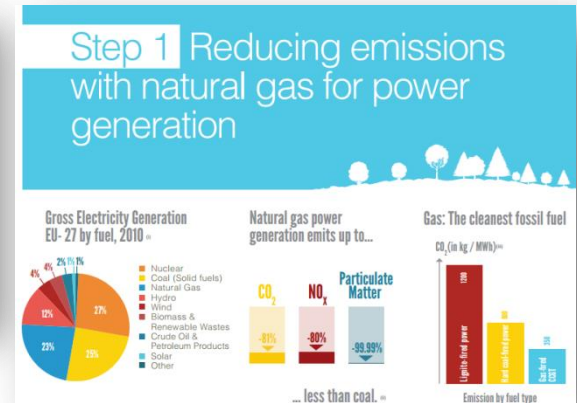
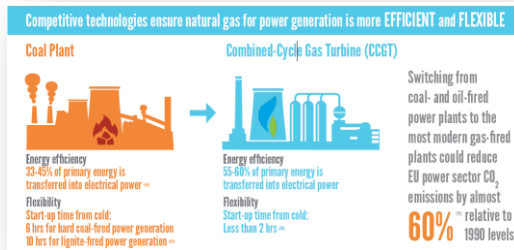
March 2014

Options for a coal-to-gas switch

POLICY OPTIONS	PROS	CONS	APPLICATION?
Carbon Tax	Easiest to implement	Tax matters require unanimity amongst Member States Politically sensitive	2011 EU proposal has been withdrawn; Carbon floor price in the UK
Emissions Performance Standards	Most efficient Cheaper for industry	Can be seen as <u>not</u> technology neutral, depending on level set	Emerging debate at EU level; Applied in the UK
Emissions Trading Scheme with high ETS price	Technology neutral Cost-effective	Carbon leakage risks Complexity	Cornerstone of EU climate policy; ongoing reform; still low price (6€/ton)

Producing Communications Materials

- Infographics, videos, animations, fast-fact cards



An Exhibition Travelling Across Europe



Establishing Annual Landmark Events



GasWeek

Member States' Gas Forum



Engaging Online

- Gasnaturally.eu
- @GasNaturally

The screenshot shows the GasNaturally website homepage. At the top left is the logo with the tagline "making a clean future real". Navigation links include "About GasNaturally", "About Gas", "Library", "Events", "Updates", and "Gas Week 2014". A search bar and social media icons are also present. The main banner features a landscape image with the text "What is GasNaturally?" and a sub-headline: "GasNaturally aims to showcase the essential role of natural gas in the forthcoming energy transformation. The mitigation of climate change has become one of the most important issues for the gas industry." Below the banner are three columns: "Latest Updates" with articles like "Registration is Open for EGATEC 2015", "Next Events" listing conferences like "Flame Conference 2015" and "GIE Annual Conference 2015", and "Latest Tweets" showing a tweet from GasNaturally about an exhibition in Vienna. At the bottom, there are three promotional banners: "GASNATURALLY POLICY PRIORITIES #2014-2019", "Natural Gas at the centre of our energy system", and "Watch our new videos".

The screenshot shows the Twitter profile for @GasNaturally. The profile header includes the logo and statistics: 2,180 tweets, 252 following, 985 followers, and 3 favorites. The bio states: "GasNaturally promotes natural gas as a safe, secure and reliable energy source in a long-term sustainable energy mix." The location is Brussels. A tweet from GasNaturally dated Mar 10 is visible, mentioning an exhibition in Vienna. Below it is a retweet from IEA dated Feb 23, stating "US natural gas boom gives stable electricity prices, lower greenhouse gas emissions & greater system flexibility bit.ly/1A0nyX".

This block contains a collage of social media profiles and logos. On the left is the Twitter logo. In the center are two profile cards: one for Adina Ioana Valean (@AdinaValean), Vice-President of the European Parliament (EPP/RO), and one for Jude Kirton-Darling (@Jude_KD), Labour MEP for North East of England. Below these are three more profile cards: Dominique Ristori (@risto20), Director-General of the European Commission; EPIA (@EPIABrussels), the European Photovoltaic Industry Association; and EWEA (@EWEA), the voice of the wind industry. A large blue Twitter bird logo is on the right.

What we achieved



Partnering With Renewables

European Photovoltaic Industry Association



Today it is clear that talking with all technologies that offer flexibility solutions, such as gas, storage, demand response, etc., will be essential to support the development of renewables. Taking a comprehensive approach to the development of Europe's energy system is the only sensible and pragmatic option.

We need more renewables to tackle the climate crisis, including solar and wind energy. Both of these sources are predictable, and these technologies together with flexible sources such as storage, gas, DSM, hydro power and other solutions, complement each other well and offer a solution for low carbon energy production now.

European Wind Energy Association



It is no secret that in the short to medium-term gas and renewables together are an essential part of Europe's energy make-up to guarantee security of supply. Moreover, it is important that we take a holistic approach when discussing the future of our energy system. And from a systemic point of view, gas and wind actually complement each other quite well.

Recognition by EU Policymakers



Gas Infrastructure Debate in the European Parliament

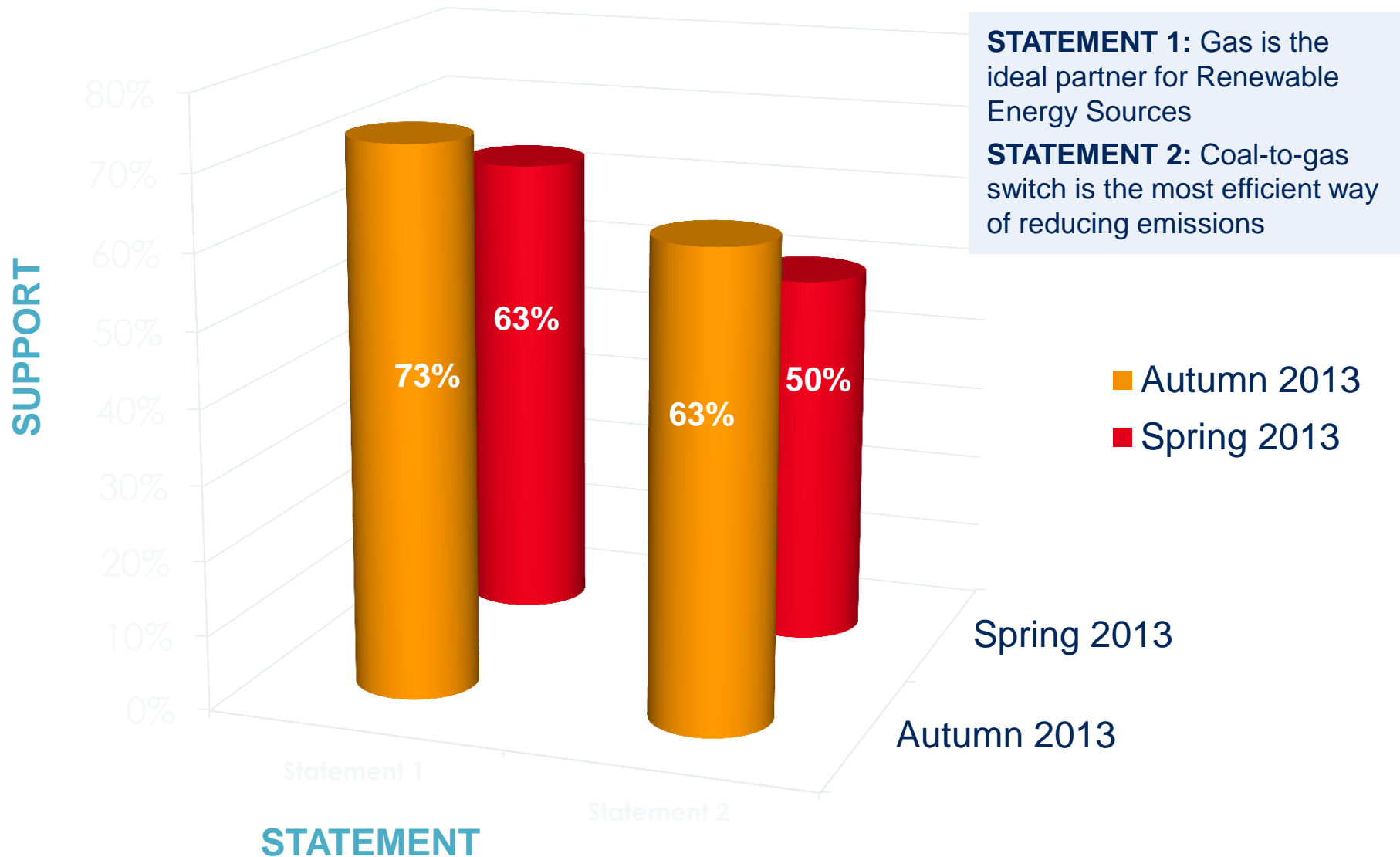


MEP Algirdas Saudargas
Commissioner for Climate & Energy: M.A. Cañete
MEP Adina Ioana Valean



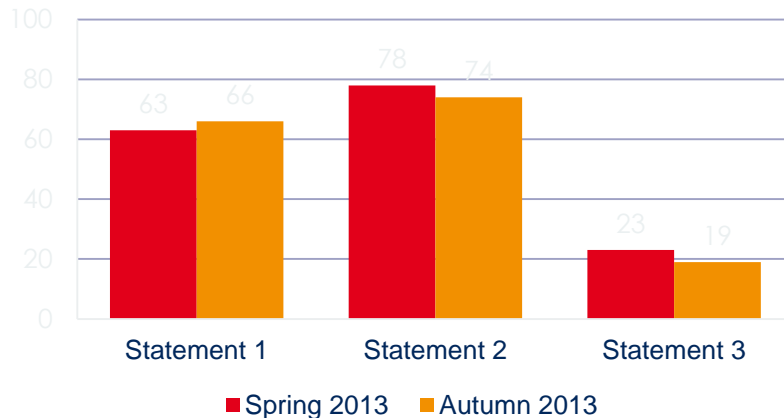
Director-General for Energy D. Ristori

Greater support for Gas in the European Parliament

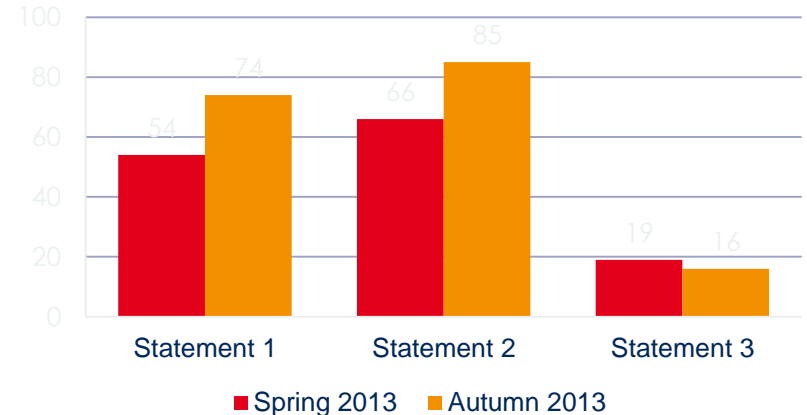


Greater Support for Gas in Political Groups

Christian-Democrats



Socialists

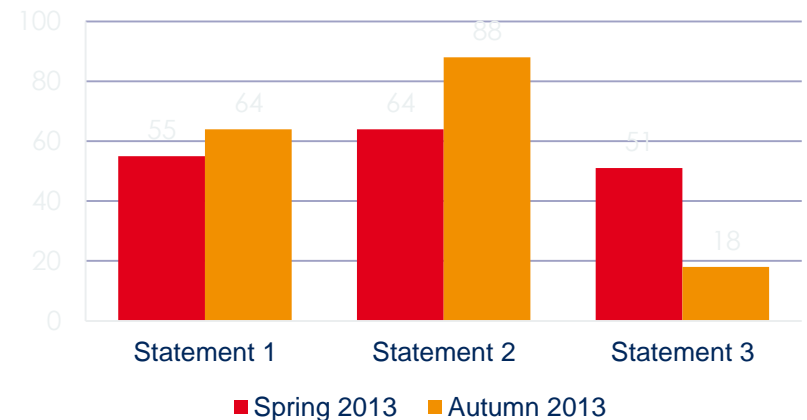


STATEMENT 1: Replacing carbon-intensive fuels like coal and fuel oil with natural gas in electricity production is the most efficient way to reduce greenhouse gas emissions today

STATEMENT 2: Natural gas is the ideal partner for renewables as it complements their variability and is the lowest carbon fossil fuel

STATEMENT 3: I do not believe that natural gas has a place in helping to achieve a low carbon economy

Liberal-Democrats



Looking Ahead



Choosing Between Different Communications Models

MODELS

TOOLS

OBJECTIVE

1

Platform

Information, data,
facts

Joint resource for
internal mobilisation &
external use

2

Solution provider

Expertise

Be a credible
interlocutor for
policymakers

● We are here

3

Campaign

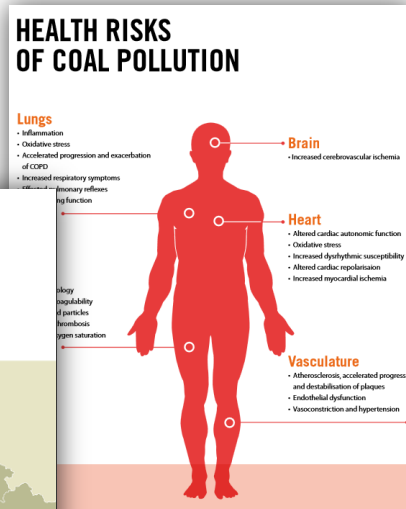
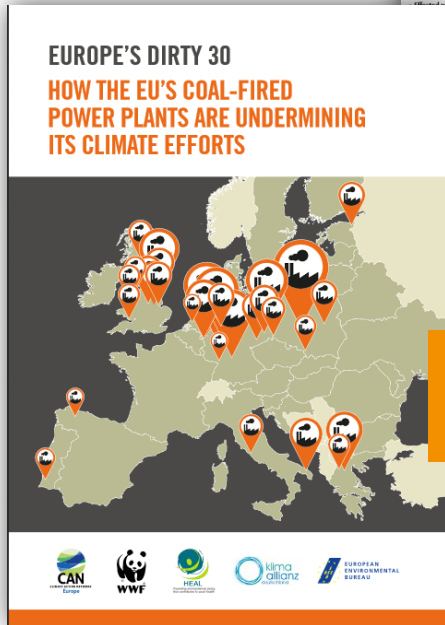
Calls for action,
emotions

Shock, leading to
action

GasNaturally: Started as a **platform**, now a **problem-solver**

Tomorrow: Calling for action?

Momentum in favour of Gas



WWF, Climate Action Network...



Greenpeace



Sandbag



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TF2.2 Relationship between coal and gas session (4 June 2015)

Calling for a Coal-to-Gas Shift in Europe

François-Régis Mouton, Chairman
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