Briefing for Director-General Juul Jørgensen

Request (ENER/6591) – Meeting with Martin Brudermüller, CEO of BASF

SCENE SETTER

Who	Mr. Martin Brudermüller, CEO of BASF
When	19 May 2022 at 14:00
Where	Bilateral meeting, DGs office
Why	• Your role: Main interlocutor on DG ENER side. • Purpose: Discuss the main topics that might be relevant for BASF and recent European energy policy measures.
Topics	• The current situation in the energy markets, incl. diversification and gas prices (REPowerEU). • The Commission's latest policy announcements, gas package. • The EU Energy Platform and how do they see it.

KEY MESSAGES

Energy prices

- Following the invasion of Ukraine, **energy prices are at record highs and remain volatile,** with unprecedented up and down swings reflecting uncertainties on energy supply.
- However, this new era of **high energy prices started to impact the EU economy well before, as of mid-2021** in parallel with strong recovery after the Covid pandemic. Gas and electricity prices are expected to remain high and extremely volatile until at least 2023.
- **Gas prices** (TTF month-ahead) soared to all-time highs in early March (220€/MWh on 7 March) following the invasion of Ukraine and the extended package of U.S. energy (oil and gas) sanctions.
- **Since then, gas prices have been fluctuating between 90 and 125€/MWh, thanks to warm temperatures, lower demand and market perceiving a lower risk of an interruption of supply.**
- **However, last week gas prices shot up on news of changing supply routes via Ukraine** (rising from 90€/MWh to 110€/MWh), perfectly describing the event-driven volatility, less relying on market fundamentals than on individual news or policy measures. The week before gas prices also reacted swiftly to news on supply cuts to Poland and Bulgaria from Russia.

- **Driven by gas prices, wholesale electricity prices (the European Power Benchmark) also rose to an all-time high price in early March** (435€/MWh on 8 March). (N.B. gas-fired power plants are setting the prices in most countries). Since then, lower gas prices and sustained RES generation contributed to relatively stabilise weekly electricity prices around 200-250€/MWh in March and 150-220 €/MWh in April.
- The **Commission is aware that high gas and electricity prices are of concern to energy intensive industries**, be it chemical industry, fertilisers, ceramics or steel and aluminium. We should also emphasize that given that Europe is highly dependent (around 85-90% of its consumption) to external price suppliers, we are price takers for gas. Electricity prices also impacted by high carbon prices, however, the predominant factor is the increase in gas prices.
- Our goal is to **keep energy prices affordable** without disrupting supply nor further investment in the green transition.
- To address the current extraordinary circumstances, **options for emergency measures to limit the contagion effect of gas prices in electricity prices** are put on the table and discussed.
- The **REPowerEU Communication of 8th March contains measures to respond to soaring energy prices**. It includes guidance for Member States on **regulating retail prices in exceptional circumstances**, as well as redistributing revenues from high-energy sector profits and emissions trading to consumers.
- The Commission issued on 23rd March a **third Communication setting out options for emergency measures to deal with the impact of increased energy prices**. Measures can include a **financial compensation** (like the introduction of a cap price on the fuel price for fossil generators) and or be a **regulatory action** without financial compensation (like establishing a regulatory cap for the maximum price that certain baseload generators can charge).
- In the meeting of 24 and 25 March, the **European Council tasked the Commission to reach out to the energy stakeholders**, and to discuss, if and how, the options would contribute **to reducing the gas price and addressing its contagion effect on electricity markets**, taking into account national circumstances.

<u>REPowerEU and reducing gas reliance</u>

- The European Commission intends to present the plan to implement REPowerEU by the end of this month (adoption date: **18 May)**. The plan will include inter alia the details on how to **reduce EU's dependence from all Russian fossil fuels** in the short and long term. It will also include a savings plan.
- The current crisis is an opportunity to reinforce our commitment to the clean energy transition and frontload the benefits of the European Green Deal. Higher gas prices increase the economic urgency to transition away from volatile fossil fuels.

- While mainly aiming to reduce our dependence from Russia, **the measures in REPowerEU will contribute to 'degasify'** (use less natural gas) the EU energy system:
    - Energy efficiency in buildings and energy saving measures are powerful instruments to secure clean energy transitions and reduce our dependency on Russian gas. The **savings plan** will enhance energy efficiency and **result in energy consumption savings of gas** (e.g. by proposing to reduce wasteful consumption of gas in households by slightly lowering the thermostat temperature).
    - **Energy savings is also indispensable to follow for industry**, as fossil energy prices higher than in earlier periods call for reducing energy consumption and replacing it by alternative sources, contributing to green transition.

Gas package and regulatory framework

- **Renewable and low-carbon gases**, including **biomethane** and **hydrogen**, will help the EU to decarbonize its gas system.
- They represent a sustainable alternative to importing fossil gas increasing energy security and EU's energy system resilience.
- The Commission published last December the **Hydrogen and Gas Decarbonised Markets Package**. These proposals cover the market design for gases, including hydrogen, and access to existing natural gas networks for renewable and low-carbon gases.
- Package has 5 objectives:
    - Enabling development of **dedicated hydrogen infrastructure** and market;
    - Facilitate access of **renewable and low-carbon** gases to existing gas network;
    - Fostering **network planning** electricity, gas and hydrogen;
    - Promote **consumer protection and engagement** in renewable and low-carbon gas markets;
    - Improve **resilience and security of supply**.

EU Energy Platform

- The European Council gave a clear mandate to the Commission and Member States to work together on **voluntary common purchase of gas, LNG and hydrogen, on security of supply and interconnectivity.**
- The Platform is articulated around three pillars:
    - The first one is the **aggregation of gas demand for (joint) purchase** to attract meaningful and timely supply volumes from the global markets;

- The **optimisation of infrastructure usage** in the EU, be it LNG terminals, pipelines and storages in order to maximise contribution to security of supply, including through the replenishment of storage.
- The **coordinated outreach to international partners** in order to prepare ground for stable long-term cooperation framework with international partners, looking beyond gas and including hydrogen and renewables.

- The Platform will also consider the specificities of the gas market in various part of the EU, through the **Regional Groups**. As a first operational case, a first Regional Group was established under the Platform in Sofia.
- When it comes to the aggregation of the demand and the possibility of joint purchase, there are multiple options are currently on the table. All of these options put the companies at the centre of the mechanism.
- The **Platform will also include the expertise of the private sector**, potentially through the establishment of a dedicated advisory group. The practicalities in that respect still have to be defined but the inception shall happen in the coming weeks
- There is a **clear progress on the coordinated outreach** where the dialogue with the US is already delivering concrete results in terms of LNG deliveries.
- The Commission wishes to **know your point of view** on the EU Energy Platform

DEFENSIVES

How can the clean energy transition help reduce faster EU's gas dependency on Russia?

- An integrated EU energy system largely-based on renewables and greater energy efficiency is the most-cost effective solution to reduce our dependence on fossil fuels at the level of homes, buildings and industry. **This is the second pillar of the Commission's REPowerEU plan**. The full implementation of the Commission's Fit for 55 proposals would already lower our gas consumption by 30%, equivalent to 100 bcm, by 2030. The energy system measures in REPowerEU would support an additional saving of over 25bcm a year.

- The Communication encourages **an accelerated roll-out of solar, wind and heat pumps**. This could bring important energy savings and reduce significantly the use of fossil gas for power and in buildings. On **solar energy**, the Commission estimates that by accelerating the roll out of rooftop solar PV systems by up to 15TWh this year the EU could save an additional 2.5 bcm of gas. We will present a dedicated communication on solar energy in June to unlock solar energy's potential. The Communication also proposes to roll out 10 million heat pumps in the next five years to help European families reduce their dependency on gas and lower their energy bills.
- By implementing the REPowerEU plan, Europe will have sufficient renewable electricity and renewable gases to accelerate the **decarbonisation of Industry**

based on faster electrification and switch to hydrogen. This will give European industries a competitive advantage and allow for faster reindustrialisation.

- Investment in renewables is still too often hampered by long permitting procedures and other administrative barriers at national level. Today's Communication looks at how regulatory bottlenecks can be eased to **speed up renewables permitting** and minimise the time for roll-out of renewable projects and grid infrastructure improvements. The Commission has published in May a Recommendation on fast permitting for renewable energy projects addressing the key barriers and good practice solutions to tackle them.
- Similarly, the Commission and the European Investment Bank Group will conclude in 2022 the financing mechanisms that would be best suited to promote the development of **power purchase agreements** (PPAs) in Europe. A public consultation on both permitting and PPAs is currently ongoing and the guidance should be published before summer.

Is the Commission proposing to cap the electricity prices?

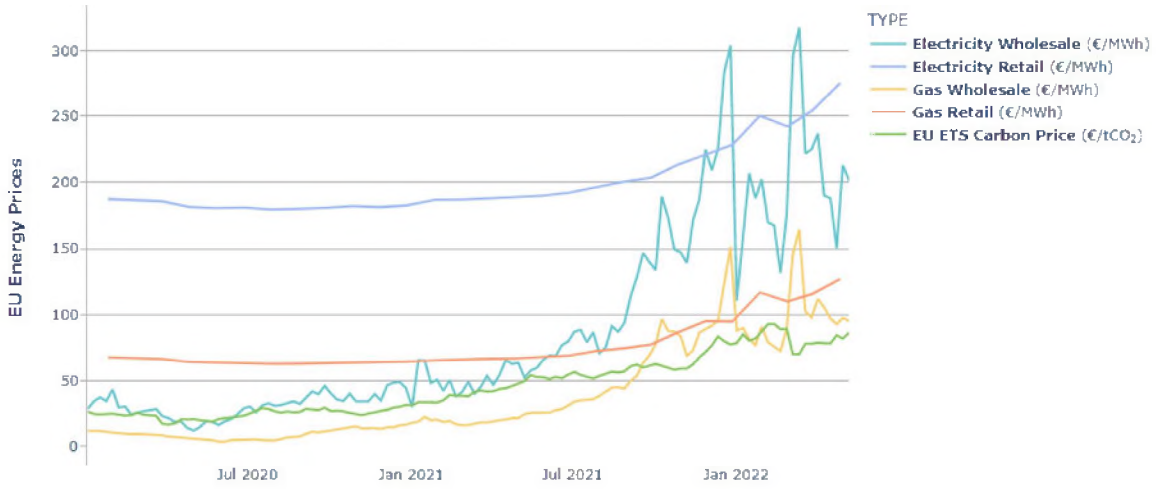
- To address the current emergency, the Commission is looking into all possible options for emergency measures to limit the contagion effect of gas prices in electricity prices, such as temporary price limits. It has consulted as a matter of urgency all concerned actors and propose options in the coming weeks. In this context, the Commission will take into account the analysis and recommendations provided in ACER's report.

- This will be done while recognizing the key role the internal energy market is playing and avoid any fragmentation. Price cap is not the only emergency measure that could be envisaged.

BACKGROUND

RePower EU	• With the measures in the REPowerEU plan, the EU could gradually remove at least 155 bcm of fossil gas use, which is the volume imported from Russia in 2021. Nearly two thirds of that reduction in equivalent energy terms can be achieved within a year, ending the EU's overdependence on a single supplier. The Commission proposes to work with Member States to identify the most suitable projects to meet these objectives. • The Commission adopted REPowerEU on the 8th of March in the light of the prolongation and aggravation of the energy price crisis. Building on the last October communication, REPowerEU presented additional guidance to provide support to households and businesses affected by high energy prices and make Europe independent from Russian gas well before 2030 by: o **Addressing the emergency**: ▪ mitigate high retail prices impacts on consumers ▪ prepare for next winter by ensuring sufficient gas storage o **Diversifying gas supplies:** ▪ Through LNG and pipeline import diversification as well as more renewable gas through increased biomethane and hydrogen production o **Reducing faster our dependence on fossil fuels**: ▪ At the level of homes, buildings and power sector by increasing energy efficiency savings and accelerating the roll out solar, wind and heat pumps by faster permitting and enhanced planning. ▪ "Transform industry" by front-loading electrification and renewable hydrogen uptake.
EU dependency on Russian fossil fuels	• The EU relies on fossil fuels imports for its energy needs, amounting to 57% to 60% of gross energy consumption in the past 5 years. Although domestic production of renewable energy sources has increased significantly in recent years, the declining production of EU coal, lignite and gas has meant that the EU remains dependent on imports for gas (90% of consumption), oil (97%) and hard coal (70%). • In the gas sector, Russia provided around 45% of the EU's total gas imports in 2021. Over the past years, this number has been on average around 40%. The other main gas suppliers to the EU were Norway (23%), Algeria (12%), the United States (6%) and Qatar (5%). • For crude oil, Russia was also the largest supplier of EU imports (27%), followed by Norway (8%), Kazakhstan (8%) and the USA (8%). In the hard coal sector, even though import volumes have declined in recent years, Russia also remains the leading supplier (46%), followed by US (15%) and Australia (13%).
EU Energy Platform	• The EU Energy Platform has been launch as an initiative of the Commission to support security of gas supply. It replies to the mandate of the European Council to work with Member States to improve security of supply, interconnectivity of networks and organise joint purchase. ▪ Member States confirmed their support for the Platform at DG level on 7 April and first regional meetings have been organised on 12-13 April. A Regional Taskforce has also been launched under the EU Energy Platform in Sofia on 5 May ▪ The aggregation and joint purchase mechanism under the Platform shall be launched as soon as possible. Options have been submitted at political level in the Commission for endorsement.

Weekly monitoring of energy prices



- *Russian invasion in Ukraine and international energy-related sanctions are deeply affecting energy markets resulting in a very substantial increase in prices, volatility and uncertainty on energy supply. After commodity prices reaching a new all-time high on 8 March, the market seems to perceive a lower risk of an interruption of supply which had a positive effect on prices despite sanctions threat on both sides. This weekly report covers the week from 2 May to 8 May.*
- **Electricity wholesale**: Last week, average electricity wholesale prices decreased slightly to 201€/MWh (-5% decrease week-on-week and +286% increase year-on-year) driven mainly by lower gas prices (marginal fuel used in the price setting). Since mid-February, we roughly observe a high correlation between gas and electricity prices, with a two-fold leverage effect. With the adoption of the EU embargo on Russian coal (it will enter into force on 10/08), month-ahead prices slightly increased by 15% to around 235 EUR/ton but end of April prices returned to pre-embargo level (due to market players possibly overestimating the impact of a disruption of supply in early March). The embargo helped decreasing uncertainty on coal markets and reduced volatility. Year-ahead coal prices were up to 245 USD/ton on 10 May. Gas to coal switching potential is close to its maximum as we are witnessing an inelastic demand of gas for power generation.
- **Electricity retail**: Driven by unprecedented high wholesale prices, retail prices increased again in April 2022 (remarkable +8% in one month and +46% year-on-year). While increasing wholesale prices is putting upward pressure on retail prices, government interventions in some Member States are helping to alleviate the bill for consumers. Most impacted countries are the Netherlands (+216% year-on-year), Austria (+126%), Italy (+117%), Belgium (+105%), and Estonia (+90%). On average, wholesale electricity costs already represent 61% of final retail prices in Europe (+2pp compared to last month and +20pp y-o-y).
- **Gas wholesale**: Last week, average TTF price decreased to 95 €/MWh (-3% decrease week-on-week and around +291% increase year-on-year) fuelled by lower risk of interruption of supply perceived by market participants and reduced gas demand for heating. JKM and DES NWE hubs are trading at discount compared to TTF month ahead. This dislocation reflects the fact that LNG regasification capacity in Europe is running at full capacity and set to remain a bottleneck preventing

incremental LNG from accessing premium European markets over the coming month. On 9 May, TTF month ahead prices closed at 98 €/MWh.

- **Gas retail**: Pushed by high wholesale prices, retail prices increased in April 2022 (+10% in one month and +90% year-on-year). While increasing wholesale prices is putting upward pressure on retail prices, government interventions in some Member States are helping to alleviate the bill for consumers. Most impacted countries are Belgium (+254% year-on-year), Germany (+197%), Austria (+196%), Netherlands (+181%), Estonia (+171%), and Greece (+139%). EU gas demand below 5-yr avg. in Q1-22 by 9.3 bcm. On average, wholesale gas costs represent 63% of final retail prices in Europe (+3pp compared to last month and +21pp y-o-y).
- **Oil**: End-April, E95, diesel and heating oil increased by respectively 28%, 45% and 89% compared to last year. E95 and diesel prices stayed below the 2€/litre threshold previously reached in mid-March. From 1 April, rebates on petroleum products have been introduced in some Member States like France (15 cts/litre) and Spain (20 cts/litre) helping to alleviate prices. Prices of crude oil (Brent oil around 100-115 USD/barrels over the last weeks) continue showing volatility and high levels. The implementation of the US plan to release their strategic oil reserve (1 million barrels a day for 6 months) and other IEA members action (an additional 120 million barrels of their emergency oil reserves) helped to put downward pressure on prices of crude oil and petroleum products.
- **EU gas storage**: EU storage increased at 37% of capacity (+4pp week-on-week as some Member States are starting to refill storages). EU storage is now at higher level than it was in 2021, getting closer to average seasonal filling level.
- **EU ETS**: Last week, carbon price weekly average increased to 87€/tCO_2 (+6% weak-on-week and +75% increase year-on-year) as the deadline for companies required to surrender permits to account for their emissions was at the end of April. Rising inflation risks seem to have supported the EU carbon price in the context of uncertainties around trading limitations and demand destruction. Early May 2022, CO_2 costs for power generation represent less than half of coal-power generation costs and less 1/6 of gas power generation costs.
- **EU inflation**: Energy accounted for more than half (4.36 percentage points) of the 7.4% total euro area annual inflation in March 2022 according to Eurostat. This is due to the 44% annual increase of prices of energy products included in the consumption basket of consumers (energy component of inflation in the Euro-area). Euro area annual inflation is expected to be 7.5% in April 2022 according to a flash estimate from Eurostat.

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Chairman of the Board of Executive Directors of BASF SE

Martin Brudermüller was born in Stuttgart in 1961. From 1980 onwards he studied Chemistry at the University of Karlsruhe, Germany, and received his degree in 1985. After earning his doctorate in Karlsruhe in 1987, he did a postdoc at the University of California, Berkeley, United States.

He is responsible for the divisions Corporate Legal, Compliance & Insurance; Corporate Development; Corporate Communications & Government Relations; Corporate Human Resources; Corporate Investor Relations.

Professional Carrier

2018	Chairman of the Board of Executive Directors, BASF SE, Ludwigshafen, Germany
2015	Vice Chairman of the Board of Executive Directors and Chief Technology Officer (until January 2021), BASF SE, Ludwigshafen
2011	Vice Chairman of the Board of Executive Directors, BASF SE, Ludwigshafen
2006	Member of the Board of Executive Directors, BASF Aktiengesellschaft (since January 14, 2008 BASF SE), responsible for the region Asia Pacific located in Hong Kong
2003	President, Functional Polymers, BASF Aktiengesellschaft, Ludwigshafen
2001	Senior Vice President, Strategic Planning BASF Group, BASF Aktiengesellschaft, Ludwigshafen
1999	Director, Production Fat-soluble Vitamins, Fine Chemicals, BASF Aktiengesellschaft, Ludwigshafen
1997	Staff to the Vice Chairman of the Board of Executive Directors, BASF Aktiengesellschaft, Ludwigshafen
1995	Head of Sales Intermediates, Pharma Chemicals, BASF Italia Spa, Milan, Italy
1993	New Business Development/Marketing Intermediates, BASF Aktiengesellschaft, Ludwigshafen
1988	Joined the Ammonia Laboratory at BASF Aktiengesellschaft, Ludwigshafen