

## HOW TO MANAGE GAS PRICE VOLATILITY IN EUROPE IN THE SHORT TERM

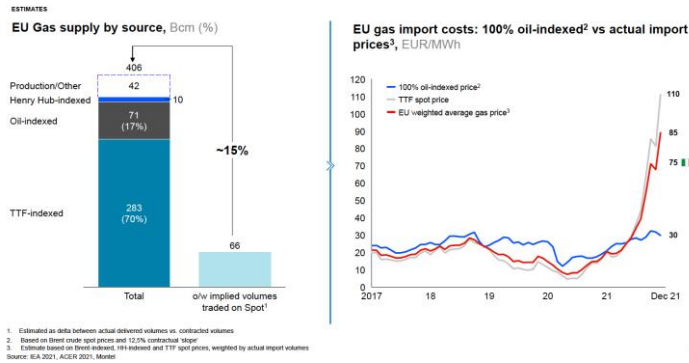
### Executive Summary

- The explosion of the marginal price of gas (i.e., the spot price of Central Europe natural gas markets – TTF) is the root cause of the recent increases in prices of energy in Europe, and in particular for electricity.
- In reality, the TTF prices have a very limited connection with the true cost of the overall natural gas supplies to Europe. Natural gas is sourced from many different locations, other than Central Europe, with contracts which prices are indexed to variables that are not connected to the price of the (very marginal) volumes transacted in the European TTF gas market.
- This is a problem that has been seen in recent months and which has been further exacerbated by the war at the border where Central Europe's main gas supply is landing, increasing volatility.
- The energy price crisis will therefore not end until the root of the problem is properly addressed. We must sever the unnecessary link between energy prices and the volatile and exorbitant gas spot prices in Central Europe TTF.
- Until then, governments, industrial sector players, electricity sector players and consumers will continue to face a pressure with impacts of billions each month.
- In the short term, ending this perverse spiraling of volatility on gas and energy prices is simple: align selling prices of natural gas to the true pricing formulas of its supply contracts. In this way, the price of natural gas to final users would reflect the real cost of supply (including reasonable and fair margins to mid-streamers).
- This would have the immediate effect of reducing prices in the gas and electricity sectors. Only in this way, the money that gas producers and mid-streamers have been making for months as “windfall profits” will stop flowing out of the other agents mentioned above.
- Moreover, severing this price link would give a strong incentive to suppliers and traders to procure natural gas from locations different than Central Europe.
- In order to achieve this, a cap on physical and financial future gas transaction completed inside the EU territory should be introduced, together with a regulated system to allow LNG imports, and quantity-based interventions.

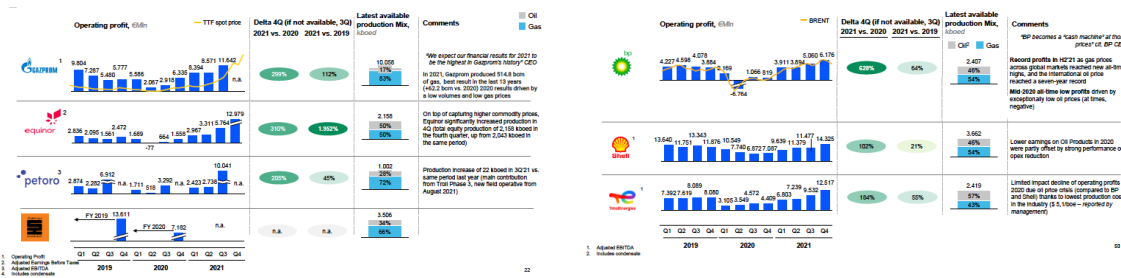
### Analysis

- **The increase in European energy bills during the last few months can be fully ascribed to exorbitant gas prices in European hubs paid by final users: residential, industrial, and conventional electricity producers.** The TTF in the Netherland, the main European gas hub, has shown price increases of 226% between the first and the second half of 2021.
- **Gas prices in Central European hubs are based on the logic of gas-to-gas competition i.e., the latest record prices represent only the marginal value of the competition between Europe and Asia for attracting additional LNG cargos.** After the end of lockdown and of the COVID-induced recession, consumption of natural gas picked up significantly. At the same time, delivery of gas from Russia to Europe remained flat, reducing the level of storage, and increasing pressure on spot prices for delivering additional liquified natural gas.
- **The effect on gas and electricity prices is heightened by the recent war with the biggest exporter of gas to Europe, Russia.** During the last few weeks gas prices hit the all-time high of almost 300 euro/MWh on the TTF hub due to the recent political instability on the European Eastern frontier and the Ukrainian war.

- It must be noted however that the average price paid by European gas players is not really connected to the TTF price, creating huge windfall profits for oil & gas producers, mid-streamers, and traders. In December 2021, the difference between the TTF price and the average EU import cost (which is based on an estimated weighted average of oil and gas prices) could have been 25 €/MWh. During the same period, the difference between TTF prices and an oil-indexed gas contract, still used in some import contracts, could have been around 80 €/MWh.



- These dynamics have translated into huge increments in profits. From 2020 and 2021 profits of oil and gas companies increased between twofold and sixfold.



- The increase in hub gas prices, due to quite marginal LNG transactions, translates also into an increase in electricity prices, as a consequence of electricity prices based on system marginal price. In the electricity sector, gas power plants are generally the marginal unit, the last power plant needed to maintain the equilibrium between generation and consumption of electricity in a particular timeframe. Their marginal costs, i.e., the cost of gas on the hub, thus define the price received by all power plants producing electricity that are not covered by PPAs and other long-term agreements (e.g., RES CfDs). Thus, the recent increases in the marginal price of gas have a negative effect on sourcing cost and price paid by electricity customers.

- The European Commission is considering possible options for emergency measures to limit the contagion effect of gas prices on electricity prices, such as temporary price limits. It is indeed high time to sever the link between marginal transactions on gas hubs and price paid by users through a measure applicable at EU level, which should be based on the following elements:

- A cap on all physical and financial EU transactions in all European hubs. The cap should be applied to all future transactions completed inside the EU territory in all hubs (avoiding retroactive measures).
- The level of the cap should be fixed in line with the physiological dynamics of the market that characterized the pre-crisis period.
- Regulated 1-way CfD mechanism to allow LNG import. Europe must continue to import LNG cargos also when international prices are above the cap to make up for possible shortages from pipelines. In a first application phase, a simple CfD mechanism that refunds the importers of the difference between international price and the cap could be put in place. In a second phase, it would be possible to introduce EU and regional auctions to coordinate LNG deliveries, storage and gas consumption.
- Quantity-based interventions to supplement the cap. Each Member State should introduce more stringent emergency plans identifying set of customers that shall not

consume gas when prices reach the cap. In addition, existing switching between alternative hydrocarbons already in place should be continued and hence a strategic reserve for must-run coal power plants must be introduced.

- **It is now of utmost importance to break the propagation of the effects of high marginal gas prices to the whole economy through price caps in gas hubs**, eliminating in the end but in place at least for a period of one year, the reference to the gas hub prices (e.g. TTF) which can no longer be considered representative of the real cost of the imported gas supplies to Europe.
- **The EC should make as soon as possible a proposal on the basis of art 122.1 TFEU.** Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy.