

<u>Meeting with Director-General Ditte Juul Jorgensen – DG ENER - European Commission</u> <u>Rome, on 8th of July 2022 – h 9:30</u>

Focus on Short term emergency measures to curb soaring prices

Why we need a gas price cap in the EU

- The increase in European energy bills during the last few months can be fully ascribed to increases in gas prices in European hubs (e.g., TTF) ultimately paid by final energy users. The rise in hub gas prices, is translating into an increase in electricity prices, being these based on short-term system marginal prices. The latest TTF price is above 167 euro/MWh which translates in a Day-ahead price in Italy above 400 euro/MWh.
- TTF prices have a very limited connection with the true cost of the overall natural gas supplies to Europe. In fact, EU spot traded volumes represent just ~15% of the total supply but their dynamics impact 70% of the volumes traded in Europe, by means of the indexation formulas based on TTF prices in long term contracts.
- The energy price crisis will therefore not end until the root of the problem is properly addressed.
 This is the one to be tackled instead of distortive market interventions. To do so, we must sever
 the unnecessary link between marginal transactions on gas hubs and price paid by users
 through a measure applicable at EU level.
- Enel has been strongly advocating for such a measure starting from March 2022, engaging
 with key decision makers at European and national level, academia and think tanks. More recently,
 colleagues from European Affairs in Brussels office met the Chief Economist of DG ENER,
 Miguel Gil Tertre, with whom they shared our positioning for the introduction of an EU-wide gas
 price cap mechanism.

Key elements of our proposal

- We believe that introducing a temporary cap on gas prices would have immediate positive effects, without jeopardizing pipeline supplies and ensuring spot LNG supplies through appropriate mechanisms. By reducing gas prices, energy bills are set to decrease consequently, with positive effects on the whole European economy in terms of reduced energy bills, inflation rate, interest rate and MS public debt. It is essential that the level of cap should be fixed in line with the pre-crisis levels and should be set equally on all Member States. The price cap should apply to all physical and financial transactions inside the European Union (e.g. trades on EU gas hubs, imbalance payments, etc..). We should avoid changing the terms of import contracts. Import prices will be affected in an indirect way through the price index formula
- Two more elements complement our price cap proposal:
 - o Since 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 (Contract for Difference) mechanism that refunds the importers of the difference between the 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 are parallelly needed to supplement the cap. Each Member State should introduce more stringent emergency plans for improving energy efficiency in gas markets. In addition, a strategic reserve for must-run coal power plants must be introduced. In any case, there should be enhanced coordination at European level in defining demand reductions.



- Such a measure will safeguard the common energy market. To do so, it is essential to avoid temporary partial solutions, like measures that target the price of gas power plants in the electricity merit order. As confirmed also by the recent ACER report, they are difficult to implement, at risk of jeopardizing security of supply, distorting cross border flows and likely leading to inefficient dispatch decisions. In addition, they will also carry significant direct costs that should be carried by the government budget or consumers. Similarly, also a cap on the wholesale electricity price would be even more destructive for the internal market.
- While we are continuously updating our proposal, there is a growing consensus that introducing a temporary price cap before a major supply disruption would bring immediate benefits. For instance, as pointed out by Prof. Neuhoff of the Cambridge Energy Policy Research Group in a recent paper, agreeing on such measure would reduce the substantial risk premium currently driving EU-gas prices and thus also global LNG market prices, ultimately reducing costs to EU consumers and payments to gas producers by a factor of 2.5 (currently at about € 400 bln/yr). According to the research, the EU will benefit in the case of a large-scale supply interruption thanks to the introduction of the measure: while the cap could reduce the available LNG imports by 6% compared to a scenario in which EU and global LNG prices escalate to 300 Euro/MWh, the limited gas price implies that households and consumers save more from lower prices than they incur costs in terms of unserved load. This analysis shows that is important to introduce the price cap before a possible disruption of Russian flows, to avoid inefficient price rises that will not bring additional gas resources to Europe but will only increase the energy bills.
- The G7 is considering introducing either the cap on gas or on oil prices. Capping oil prices is far more complicated then capping gas ones, as most of the commodity is delivered by ship (oil pipeline deliveries accounted for less than 10% of total EU imports), which may offer suppliers concrete possibilities to reroute the cargo to different countries, especially as obligations linked to long-term contracts are less frequent in the oil market than in the gas one. On the other hand, given that LNG deliveries by ship accounted for a limited portion of gas delivered to Europe (20% of total EU gas imports), it's impossible to reroute most of the gas delivered to Europe, i.e., via pipeline. Therefore, when deciding which mechanism to introduce, the first choice should fall on gas, which has far greater chances to produce a positive effect in the short term.

A few more details and answers to common objections

- How to legally introduce a cap in the gas market? The cap should be introduced under article 122 TFEU. According to Article 122, "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." The proposal should be applied immediately, and it should not be retroactive (e.g., avoid gas already bought or stored). In particular, the maximum price should apply to hubs, private transactions, balancing mechanisms and retail contracts.
- How to compensate customers? The proposal of a price cap in the gas market directly reduces the cost of gas for final users because it modifies the price of 70% of the gas imported in Europe. On the contrary, other forms of price caps do not reduce the cost of gas, as they only shift the burden between market participants and/or state resources. Some forms of compensation/reindexing could arise for existing financial transactions (example CfDs) and for importers to cover the difference between the new price cap and import price for the first month (in the subsequent month, the import price will be the cap or a price below that level).
- Will exporting countries be able to avoid the cap? The proposal on gas cap does not affect contractual specifications of existing contracts. They will also be obliged to continue delivering at least the quantity identified in the contract. Given that the price of cap will be set above the historical price of gas, exporting countries have the incentive to continue delivering gas because it will be still above its long-term cost of production.



There is a **remote possibility of marginally changing the incentive to shift delivery of gas** towards markets that do not apply a cap (e.g. UK) or to switch from pipeline delivery to LNG delivery, however:

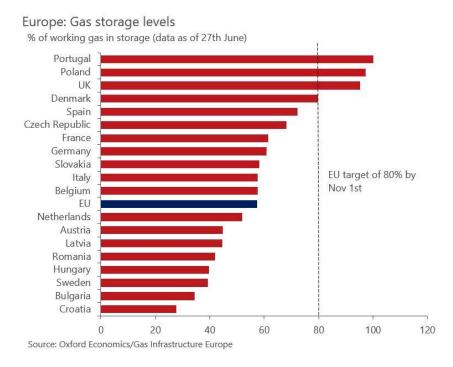
- o In this moment **LNG exporting capacity is constrained** (which is one reason of the current crisis) and many countries are not able to shift much production from pipe to LNG
- o Concerning pipeline re-routing, only an arbitrage between UK and EU from Norway could take place. Other pipelines do not really allow for appreciable arbitrage.
- How to coordinate gas curtailments? The need to coordinate gas curtailment does not arise from the introduction of a price cap; it arises from uncompetitive behavior from third countries. The price cap is fixed at a level that continues incentivizing new investment and avoid economic curtailment. In fact, in case prices for spot LNG transactions are above the EU price cap, EU importers can import gas with a specific CfD mechanism that compensates the difference. At the same time, it is important to discuss at European level how to coordinate curtailment of gas consumption in case third Countries decide to reduce their delivery, as it is already happening, independently of the modification of price cap inside the European Union. In this case, it is important to avoid Countries with additional import flexibilities and/or state resources do not participate in a fair allocation of consumption reductions. In particular, the CfD mechanism for the import of spot LNG should be coordinated at EU level to pool resources and coordinate the distribution of international purchases inside the European Union.
- Is it possible to balance the European Markets with a cap? The possibility to import more gas is available through spot transactions even if we introduce a cap on hubs. At the same time, there must be some methodologies in place to share gas bought with spot transactions between Member States. A mechanism to compensate for regional price differentials within Europe should be foreseen to keep flows running, such as a simple one that compensates for the out-of-pocket costs of pipeline imports from Europe.

Focused questions by D-G Jorgensen

- Concerning the debate on a platform for gas purchases at EU level we believe it is an interesting proposal because it improves coordination between market operators in a particular situation in which there are limited quantities of spot LNG in the global market. In addition, it could help improve monopsonist market power of the European Union when discussing new gas agreements with third countries. At the same time, a gas contract is a complex agreement that requires skills to define accurately the different elements (price formula, minimum contractual quantities, force majeure clauses, liquidity clauses, flexibility clauses, port of delivery, etc..). for this reason, it could require sometime to set up an adequate coordination between members and it should be be managed by market participants under the supervision of the Commission and Member States. In the meantime, Member States should continue their coordination inside the Gas Coordination Group. In addition, the platform could be developed in conjunction with the cap on gas. In fact, it could become the central platform for the coordination of the CfDs contracts to acquire spot LNG cargos when international prices are above the European cap on gas.
- A joint platform to coordinate the response in case of a Russian supply interruption would instead be faster to put in place and extremely useful, as the Commission should have a leading role in addressing possible emergency situations. We fully agree with the Building Blocks presented by the EC in the Gas Coordination Group on 1 July:
 - we need adequate scenarios, including full disruption from Russia
 - We need pre-emptive measures: including fuel switching and information campaign
 - Guidance to Member States to identify non-protected customers
 - Reinforced EU coordination and solidarity



From a Security of Supply viewpoint there are few concerns in Spain and Italy, as the storage filling mechanisms put in place in the two countries are working quite well (both countries are already above the EU average filling rate). In Spain there's a strategic reserve in place covering 28 days of consumption, while in Italy the auction mechanism set up by the regulatory authority to boost filling seems to deliver well, as Italian storages are currently about 60% full, heading towards the 90% target aimed for this winter. More concern is instead related to the country of origin of the gas supplied to these countries. In the case of Spain it is essential to rely on Algerian supply, while Italy cannot ensure security of supply relying only on the available storage capacity (total capacity would cover for little more than 20% of yearly consumption), so it is necessary to continue relying on Russian gas supply, at least in the short-term.



 Enel is not directly exposed to Russian supply, we don't currently have open contracts with Gazprom, and our gas purchase plan is fully aligned with European long-term decarbonization strategies and the Fit For 55 target of achieving carbon neutrality by 2050. Even more ambitiously, as a company we are on the path to reach our goal of stopping to use gas power generation by 2040, when we plan to achieve carbon neutrality.

Focus on Market Design

ACER and then the European Commission in the REPowerEU committed to consider the revision
of the electricity market design over the course of the next months. An indicative timeline for
the market design review is the following: an impact assessment is currently being prepared and
should be subject to a public consultation in November 2022, with a publication expected in the
first quarter of 2023. Possible legislative proposals by the summer 2023.



9-10 June 2022	Summer 2022	20-21 October 2022	November 2022	January 2023	Summer 2023
Florence Forum on Electricity Regulation	Presentation of proposals by the EU Commission	• European Council	Public consultation on the impact assessment	Presentation of the impact assessment	Legislative proposal

- It is essential that the market design of electricity is completed with the **introduction of long-term price signals to deliver an adequate level of investment in RES and security of supply.** The current market design, implemented since the mid-2000s, has focused on the integration of dayahead, intraday and balancing. This focus has brought increased efficiency i.e., reduction of short-term dispatching costs: in each moment the price of electricity expresses the minimum short-term marginal cost (fuel, variable O&M and CO2 costs) to cover the demand. However, this mechanism does not provide strong and stable investment signals for intermittent generation (i.e. PV and wind).
- The decarbonization of the electricity sector requires that short-term energy markets are complemented with long-term price signals. Considering the diverse types of customers, retailers, generators and DSR providers present in the European retail market, a mix of different solutions can be introduced at European level:
 - On the one hand, some industrial customers can use **PPAs with RES generators**. Their deployment at European level can be facilitated thanks to:
 - 1. Reduced cost of guarantees through state and European resources (i.e. EIB or EIF) and/or the introduction of a Central Counter Part
 - 2. Contract standardization
 - 3. Aggregation of demand and supply of PPAs
 - 4. Exchange of PPAs
 - 5. Improvements in GO and sustainability criteria
 - On the other hand, some long-term renewable energy could be procured through **RES** auctions. RES auction could be also improved to facilitate the deployment of RES and storage solutions in which the price received is a function of system demand.
 - Finally, long-term price signals could be developed in a fully decentralized way, introducing obligations on suppliers or final customers to satisfy their demand through an array of long-term solutions: decentralized generation, PPAs and auctions.
- The presence of long-term price signals allows a two-stage market, which offers the benefits of both system marginal prices and pay-as-bid mechanisms. In the first stage, the projects with lower total costs are selected thanks to auctions and decentralized mechanisms (e.g. PPAs). In the second stage, Day-ahead, intraday and balancing markets continue selecting available resources with the lowest cost, ensuring an efficient dispatch.

Focus on RES PV Supply Chain and Permitting

Reshoring of the PV Supply Chain in Europe

- A European solar PV supply chain with strong sustainability features is a common European interest because the PV sector is a strategic "asset" to achieve European energy strategic autonomy.
- With the recent publication of the **REPowerEU**, the European Commission is going in this direction. As Enel, **we strongly support the general approach of the European Commission** and its effort to tackle the root causes of the energy crisis and accelerate the pace of decarbonization. [Delivering the RePowerEU objectives will require 300 €B investments by 2030 (of which 210 €B by 2027). 225 €B are already available in loans under the Recovery and Resilience Facility, while further



funds will come mainly from Cohesion Funds, Rural Development Funds, ETS revenues and the Connecting Europe Facility].

- Enel expresses strong support for the EU Solar PV Industry Alliance proposed in the recently
 adopted EU Solar Energy Strategy; will bring together industrial actors, research institutes,
 consumer associations and other stakeholders to identify and coordinate investment opportunities,
 project pipelines and technology portfolios and establish pathways for the solar industrial
 ecosystem in Europe.
- We are advocating the European Commission to deploy a complete toolbox for enabling the reshoring, as soon as possible, of a domestic industrial PV value chain, from polysilicon to recycling, able to supply 40GW.
- Currently, there is indeed a large capacity gap in Europe in the solar industry and most of the necessary raw and processed materials as well as final key components and equipment are imported.
- The gap is mostly concentrated on the **component manufacturing part** of the supply chain; **China is currently the dominant hub for PV manufacturing, leading the strategic raw material availability** [53% of Critical Raw Materials used in PV systems are currently located in China while the EU currently supplies just 6% of the raw materials used in PV systems] and dominating the market on the supply side. **Wafer production is concentrated in China** [the top 10 wafer manufacturers have a market share of 97%, while the 3 largest manufacturers Longi, Zhonghuan, GCL have a market share of 71%]. Inverter production is more geographically dispersed than other steps of the value chain (not only Chinese manufacturers, but also some European IT, DE, FR, SP).
- In the EU territory, there is already a strong ecosystem of assets, skills, and technology to be leveraged; we simply must keep enhancing and increasing this expertise. It is necessary to increase the security of the PV supply chain (securing the production of critical materials of PV industry) by reshoring it inside European territory (now mostly located in China).
- Considering the limited maturity of the PV industry in Europe and the dominance of China, the
 investments for building and scaling the industry in Europe in all steps of the value chain
 require de-risking, for companies and for financiers. These mechanisms should be established in
 a way that, on one hand, does not increase decarbonization costs or decrease the decarbonization
 speed; and, on the other hand, it creates big economies of scale and scope in Europe.
- We ask for the establishment of ad-hoc mechanisms such as:
 - the adoption of an EU-wide binding target for the increase of production capacity by 2027;
 - the implementation of appropriate financial supporting measures for the construction of manufacturing facilities of the panel and additional market mechanisms for the demand for EU sustainable PV panels. We could call for the establishment, at EU level, of an ad-hoc Investment Facility or, alternatively, the set-up of a specific Fund;
 - we call the EU Commission to support the already launched PV-IPCEI (promoting industrial scale up rather than R&D projects);
 - we could support and foster a dedicated budget within the Innovation Fund to address specifically the projects on PV value chain, along with increasing flexibility in terms of State Aid rules to benefit green manufacturing capacity;
 - on the demand side, we could ask for the introduction of tax credits for purchasers of equipment and materials produced in a sustainable way;
 - an additional instrument could be the introduction of the non-price criteria in renewable auctions. It is anyway essential also to establish an EU certificate to verify that the panels satisfy adequate sustainability criteria.



Accelerating Renewables deployment by further strengthening the EC's legislative proposal under REPowerEU

- Enel welcomes the EC proposal including bold ambitions to accelerate and promote the development of renewable energy under the REPowerEU plan.
- However, Enel believes that there is margin for improvement to faster in accelerating RES deployment that will contribute in security of supply while containing financial impacts of the energy crisis.
- Enel recommends that the overall process of identifying suitable land and sea for renewables development, designating renewables go – to areas and developing the related plans is accelerated. The 2 years' timeline proposed by EC is considered an exceedingly extended period compared to the current emergency, especially considering the delays that are very often observed when Member States must transpose Directives into national legislation. To avoid such cases, Enel strongly suggests conditioning the release of indirect funding (RRF) to Member States to the completion of the tasks.
- Enel suggests the introduction of specific percentage of land that the suitable areas for renewables development will account for. A numerical threshold needs to be set to better guide Member States in the identification. It should be also clarified that in the remaining areas (outside go to areas) RES projects area not excluded but rather must be more thoroughly assessed for their environmental impacts. No land should be excluded for the deployment of RES.
- Enel strongly recommends the re-assessment of non-suitable areas. Member States should
 be requested to re-examine the areas that are already identified from the past incompatible for
 renewables deployment, since at the time of the classification there was no threat of supply
 interruptions.
- An ideal solution that can significantly contribute to optimizing the current fleet and the
 existing power grid is hybridization, therefore we suggest that the Renewable Energy
 Directive explicitly promotes this type of projects. Hybridization improves the annual capacity
 factor; the output power is more stable, and projects become less stochastic thus balancing
 needs are reduced. It has lower investment costs, as the same infrastructure is used by both
 technologies. Also, the installation of a new RES of another technology in an existing RES
 plant does not take up extra grid capacity but improves grid utilization.
- Another aspect that could be further improved is the timing for permit granting, especially for renewables go to areas. We consider that the 1 year is a prolonged period, especially provided that those plant will not have to undergo environmental impact assessment, which is the most time consuming part of the overall permitting process.
- We highly recommend that the concept of tacit consent is applicable both inside and
 outside renewables go to areas. Tacit consent is a strong and effective means to achieve
 acceleration of permitting procedures and it can also act as a motivation for Member States to
 staff the administrative authorities better and more sufficiently with highly skilled and
 experienced officers. Additional ways that should be also introduced is the exercise of power
 of substitution and the identification of "commissario ad acta".
- Enel strongly recommends that the proposal includes provisions on power grid expansion and reinforcement to be prioritized by the Member States. One of the top reasons of delayed renewables permitting is the lack of available grid capacity. The power grid is the backbone of the energy system and Member States should be requested to align grid planning with climate neutrality goals and to also consider its development being in the overriding public interest.



BACKUP on Fit for 55 and RepowerEU

- With the Fit for 55 package published in July 2021, the European Commission proposed an increase
 of EU's 2030 targets to comply with the EU Climate Law goals to achieve an EU's net GHG
 emissions reduction of 55% by 2030 and climate neutrality by 2050, including:
 - o increase from 32% to 40% share of renewables in the EU energy system;
 - o reinforce the ETS -including a separate ETS for road transport and buildings- resulting in an emission reduction in sectors concerned of 61%, and increase the EU target for non-ETS sectors emission reduction from 30% to 40%;
 - o improve energy efficiency target from current 32,5% to 36% reduction in final demand;
 - tighten CO2 emission standards for cars and vans, among many others;
 - o apply carbon pricing to EU imports of energy intensive goods (CBAM).
- The Green Deal and the Fit for 55 paved the way for a sustainable and socially fair energy transition
 but the current crisis calls for more ambitious targets. The REPowerEU is the response in the short to
 medium term to strengthen economic growth, ensure the security of supply and tackle climate change
 for Europe. The Commission is proposing:
 - to accelerate renewable energy deployment, increasing the 'Fit for 55' headline target by 2030 from 40% to 45% and introducing a brand-new EU Solar Strategy [The EU Solar Energy Strategy will boost the roll-out of photovoltaic energy. As part of the REPowerEU plan, this strategy aims to bring online over 320 GW of solar photovoltaic newly installed by 2025, over twice today's level, and almost 600 GW by 2030];
 - to foster direct electrification solutions (i.e. electric heat pumps) that reduce the demand of natural gas in the commercial and residential sectors and enhance long-term energy efficiency measures, including an increase from 9% to 13% by 2030 of the binding Energy Efficiency Target under the 'Fit for 55' package;
 - to diversify energy sources, including short-term diversification measures on gas;
 - to modernize and digitalize the grid infrastructure;
 - a Solar Rooftop Initiative with **obligation to install solar panels** on new public and commercial buildings and new residential buildings starting by 2026;
 - a target of 10 million tonnes of domestic renewable hydrogen.
- REPowerEU Funding by 2030: 300 Bln € investments needed to phase to Russian fossil fuels [95% for green projects; 5% fossil] [225 €B are already available in loans under the Recovery and Resilience Facility, while further funds will come mainly from Cohesion Funds, Rural Development Funds, ETS revenues and the Connecting Europe Facility].
 - Short Term: 2 Bln € for delayed phase out and more operating hours for coal
 - Mid-Term (until 2027): 271 Bln €
 - o **86 BIn €** Increasing RES production capacity
 - 56 BIn € Energy eff. in buildings and heat-pumps, solar rooftops etc.
 - 41 Bln € for reducing use in Industry, that is electrification of industrial processes (i.e.heat processes, demand-side management and response)
 - 39 Bln € for power grids and energy storge
 - 37 BIn € for increasing sust. biomethane production
 - 10 BIn € for new LNG terminals and gas pipelines
 - 2 BIn € for Biomass
 - Long Term (from 2027): 27 Bln € for increasing renewable or fossil-free hydrogen production and infrastructure.



• By 2030 combined measures from RepowerEU and Fit For 55 could reduce EU gas dependency by 310 bcm, twice the imports from Russia in 2020. Short-term measures amount 101 bcm, ~2/3 of Russian gas.

