

Dear Directors, dear Colleagues, Ladies and Gentlemen,

The French Energy Council, which I chair, decided more than two years ago, to organize a European Forum on energy security. At that time, we didn't know that this theme will be so much in the news, but we had the conviction that it was overlooked in Europe and that it did need a lot of attention.

The current crisis obviously highlights a series of vulnerabilities in the European Union and beyond. I strongly believe that these weaknesses have their roots in the way that the energy policy has been designed and developed in Europe in the last decades and especially in the choice of market design which was made. Obviously, lots of people today are looking on how to implement the market design, but I would like to share with you two ideas I carry away from where we are today:

First we need to acknowledge that we are facing a massive investment challenge that requires long term contracts.

Today maybe it's not "the economy, stupid" but "it's the investment, stupid". Why did we forget about the economy in the US 30 years ago? Why did we forget with the investment in the energy in Europe over the last couple of decades?

We must reckon that a massive wave of investments is in front of us. It's been calculated that to remain on track with the Paris Accord, investments in the power sector need to at least double in the next decade according to the IEA. That means additional 800 bn\$/year globally within ten years, of which +150 bn\$ for grids. Investments on the customers' side for their own electrification and optimisation should grow even faster: more than doubling for energy efficiency and more than quadruple for end-use investments, such as electric vehicles.

Do we have any chance that this will happen? Can we foresee a way where such a massive disruption can be implemented? One of the key drivers to this change is long term contracts to remunerate investors. To trigger the right level of investments in the right technologies at the right time, we need to adapt our market design to the new context of increasingly volatile short-term markets and probably on the market design side a move towards some kind of "hybrid markets". This means to complement short term markets by long term remuneration schemes for all low-carbon generation assets. By doing so, we would move from "competition in the market" to "competition for the market" within the framework of enhanced energy planning. On the customers' side, hybrid markets can provide stable long term price signals required for end-users' investments in energy efficiency and electrification: those investments are also very capital-intensive.

Major energy economists across the globe are now converging towards this model, including the designers of the market opening of the 90s. May I give the name of Paul Joskow and Richard Schmalensee as some of those people advocating for this hybridation. I understand that in this room similar views have been taken by our friends Dominique Finon and Jacques Percebois and I'm sure you will have the opportunity to get into further and more detailed discussions on that topic during the day.

Let me just add, at this stage, that long term contracts are needed not only for new investments but also for long term units. In the last decade, we have lost, in the Union, more than 50 GW of dispatchable capacity for an almost constant demand. So, we are taking risks. The era of a hypothetical overcapacity, which was claimed by many NGOs, is definitely over. Capacity margins are reaching alarming levels that shows that we are in a very tight situation. Our electricity system is becoming less resilient to events such as difficulties of course in the supply of gas but also other events like low water levels, low nuclear availability and more and more less wind than expected, probably due to climate change itself. So, we know this is not sustainable, we cannot live with so little margins.

My second example: the issue of electricity pricing. The track record of Europe before the crisis was already concerning. Between 2010 and 2019 the average prices to residential customers and industry in Europe have increased. They have decreased in Japan, in China and in the USA, thanks to low gas prices after 2014. In 2019, Europe had the highest electricity prices for households of G20 countries: two to three times higher than in China and the USA; prices to industry were among the highest: 1,5 times higher than in China and 2 times more than in the USA.

The crisis has dramatically exacerbated this situation. Prices of gas as we know in Europe are now 10 times to what they were before pre-crisis levels. Electricity prices have followed a similar pattern with current forward prices for 2023 above 500€/MWh against roughly 50€/MWh before the crisis. Those increases are now rapidly moving down towards final customers, and this is raising major concerns for the political level because of inflation, because of potential closures of businesses, because of social unrest, and we have all of signs of this amazing situation and the way that governments hope to find solutions day after day.

We are living an unprecedented situation, we need to make sure that the decision that are made, maybe hastily, go in the right direction. They won't be perfect, but they need to go in the right direction. Our dependance to Russian gas has been an amazing example of blindness. In 2021, almost 45% of gas imports in Europe were coming from Russia. This number is higher than it was before 2014 and the annexation of Crimea. After the invasion of Crimea, Europe increased its dependency to Russian gas.

The elimination of long-term contracts both for gas and electricity due to regulation implemented by the European Union and the European Commission, has deprived Europe of any ability to absorb shocks and has considerably increased its vulnerability to the weaponization of energy.

Regarding electricity, pricing power to final customers based on short term markets has extreme amplifying effects. Let me just give some stylized figures here to illustrate this effect. If we assume an annual average spot price of 400€/MWh and prices to end-users based on this short-term price, then the rise in wholesale prices translates into an extra-cost of around 1000 bn€ for final customers in Europe, on an annual basis. Meanwhile, the real generation cost increase is 5 to 6 times less, around 150-200 bn€, mostly due to the increase of gas plant costs and, to a much lesser extent, of coal units burning imported coal. The costs of all other generation plants have remained constant.

The current market design clearly leads to what we could call a cost “bubble” (*la fameuse rente infra marginale*): it artificially increases the burden for final customers, and, in practice, this means huge transfers to the states and fiscal deficits. Moving to a hybrid market would avoid a strong proportion of this “bubble” effect as power generators would be remunerated at their full cost - plus a profit of course - through long term contracts. This is also why, I believe that the cap on gas prices for power, implemented in Spain and in Portugal for the last few months, should be implemented Europe-wide. And looking at the most recent news, there is a movement from the European Commission in that direction, and hopefully Germany will follow which has not yet been the case.

Ladies and gentlemen, we have been through an energy crisis for more than one year now. Let's not forget that the war in Ukraine began in February, that price volatility began in the summer of 2021. The consequences for Europe are extreme in terms of gas and electricity price increases, of record-high inflation, social and industrial stress and this will most likely and unfortunately lead to an economic recession in this part of the world.

States today are very conscious of this. They try to do their best, each State in its own way, depending on its fiscal capabilities with the risk, which is obvious, of increasing inequalities across member states in Union while the single market was frost into the convergence of the economies in the EU.

Discussions on the emergency measures which are taking already quite a long time may proof to be “too little, too late”. The recent decisions agreed on 30 September, while welcome, do not seem to have avoided that risk. The remuneration cap for electricity, which nobody understand why it is 180, poses serious implementation issues in terms, for instance, of compatibility with the hedging positions of the various players and of loss-making risks for certain types of assets. As I have just said, another measure such as the price cap on gas for electricity put in place in the Iberian Peninsula has demonstrated its effectiveness at decoupling gas and electricity prices. We would like at EDF, and I would speak also for most of Eurelectric at the same time, the decoupling of gas and electricity price is taking too long to implement. If it works in Spain and Portugal, why couldn't it work for 27 member states?

However, I do understand my speech is very much based on short term issues, these discussions should not divert us from building more structural solutions to the crisis. As we have seen, much of the vulnerabilities of Europe in this crisis take root in our market design. A reform of our market design is the only sustainable and effective way to tackle those vulnerabilities at their root. The sooner the better.

Unfortunately, the current European procedures to adopt new directives offer little hope that such a new market design could be put in place before 2026/2027 mostly because we have European elections in 2024 and it is quite likely that for 12 months basically as we say nothing happens.

I think between the weakness of the short-term measures and the time it takes to implement a new market design the situation looks a little grim for Europe. I'm sorry to have given you this pessimist view but I will end by saying that when the situation is difficult, then we need all of us to think out of the box. And I think this meeting of a lot of very expert people will lead us to such out of the box ideas, so that a scenario of a long period before we see the light out of the current tunnel will be shortened and you have an important role in achieving this.

Thank you for your attention.