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UNION DES INDUSTRIES UTILISATRICES D'ÉNERGIE
ÉNERGIE ET COMPÉTITIVITÉ DES INDUSTRIES

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UNIDEN's response to the public consultation on the reform of the EU's electricity market design

Summary

Created in 1978, five years after the first oil crisis and one year before the second, UNIDEN represents the energy-intensive industries operating in France, for which energy supply costs and CO2 emission costs are a key competitiveness factor.

UNIDEN's members account for around **70% of industrial energy consumption in France** and are active in energy, aluminium, steel and other metals, building materials, refining and chemicals, glass, paper, automotive, batteries, semiconductors, transport and food processing.

In order to maintain and develop their activities in France in a context of energy transition, they need predictable, stable and competitive energy supply conditions.

In the face of the unprecedented energy crisis we are experiencing, **the the European electricity market design has shown its limits** with:

- **An inadequate price formation mechanism** that leads consumers to pay, every hour, the price of production of the marginal power plant, operating, most of the time, from natural gas or coal, so that the wholesale market price has exploded with the prices of natural gas, coal and CO2, while the average cost of nuclear or renewable production assets have been little or not impacted by the energy crisis;
- **Extreme volatility of wholesale market prices** which prevents any projection, whether for consumers who need visibility for their investments (and in particular to invest in decarbonisation through electrification) or for producers who have to invest in electricity production assets which are by nature very capital intensive;
- **As electricity is an essential good for almost all consumers**, in the absence of emergency public measures to mitigate the impact on final consumers (incl. the TCF) and a good response to the call for sobriety, the destruction of demand would have been considerable at the price levels that were reached, multiplied, over certain periods, by more than twenty, causing very serious disruptions to the very functioning of economies, businesses and living conditions of individuals. At the same time, **supply cannot of course be created in a few months and is highly dependent on public decisions** (investment in nuclear power, increased production of renewable energy, etc.);
- **Price signals that are incompatible with the European Union's Green Deal objectives**, with European industry structurally losing competitiveness in relation to the rest of the world (and in particular Asia and the United States) and a structural indexation (and one that is out of step with the reality of costs) of electricity prices to the price of fossil fuels and CO2 that is incompatible with the decarbonisation of industry, particularly through electrification.

The energy-intensive industries, whose activities are upstream of the industrial value chains and highly exposed to energy costs on the one hand (energy represents 10 to 70% of their production costs) and to international competition on the other hand, have been particularly impacted by the energy crisis, with in particular:

- **price levels for electricity and natural gas that were incompatible with competitive production**, leading to significant production shutdowns in France and Europe (and therefore higher imports) for manufacturers who were unable to pass on their higher energy costs in their selling prices;

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- **no visibility on energy prices and in particular electricity prices in the short, medium and long term**, with a sharp slowdown in investment projects in Europe and in particular investments in decarbonisation projects;
- **an increase in the cost of investment** in decarbonisation projects, making them more difficult to access;
- **an increase in working capital requirements**, with a strong impact on companies' cash flow to the detriment of their investment capacity, particularly in decarbonisation projects or the maintenance or development of their production facilities;
- **a rise in local raw materials (commodities that are not easily transported),** which have a lasting effect on their competitiveness, particularly in relation to Asia and the United States,
- **a sharp deterioration in Europe's global competitiveness** compared with other regions of the world, particularly Asia and the United States, which is likely to drive industrial investment out of Europe in the coming years.

In view of this, many Member States have called on the European Commission to urgently launch a process to **review the European wholesale electricity market design** so that it responds much more efficiently to the three main requirements:

- **consumer protection** and access to competitive and cost-reflective energy;
- **decarbonisation** with price signals likely to encourage the electrification of usages;
- the **renewal of the European electricity production mix** and its financing.

The current energy crisis, because of its scale and its very profound impact, both immediately and in the long term, not only offers a real opportunity but also requires a review of the fundamentals of the EU wholesale electricity market design and an adaptation of its functioning in order to create the conditions for supporting low carbon reindustrialization for the benefit of the economy, jobs, sovereignty and Europe's carbon footprint.

Since its creation in 1978, UNIDEN has been advocating for sustainable and competitive access to low-carbon energy and in particular to low carbon electricity, which is a *sine qua non* condition for maintaining in Europe a basic industry, highly energy- and/or electro-intensive, located upstream and therefore essential to strategic or high added-value value chains (materials, medicines, civil and military equipment, automobile and aeronautics, batteries and electronics, agri-food, etc.) and contributing to their decarbonisation, through the solutions it provides.

Therefore, UNIDEN considers it urgent and essential to:

1. **acknowledge the current malfunctioning of the wholesale electricity market** for European industry, which severely constrains their ability to maintain and develop their activities and to invest in decarbonisation projects;
2. **thoroughly reform the European wholesale electricity market with the main objectives:**
   - to maintain and develop a sustainable competitive low-carbon generation mix;
   - maintain a resilient, competitive and sustainable industry across all its value chains and
   - support low-carbon reindustrialisation.
3. **guarantee long-term competitive access to low-carbon electricity** for electricity-intensive industries via long-term contracts.

The guidelines outlined by the Commission through the questions posed in its consultation are essentially aimed at preserving the core of the current electricity market design, i.e. *dispatching* based on the activation of the marginal power plant at its marginal production cost to ensure the balance between supply and demand at all times ("balancing") **and adding complements that make it possible to limit the**

consequences for both producers and consumers of the structural difference between the annual average of marginal production costs and the average production cost of the mobilised production mix for the different consumption profiles.

However, the mechanisms proposed by the European Commission to compensate for this structural failure of the market design - whether it be long-term contracts based on renewable or low carbon assets (PPA), contracts for difference (CfD) or the taxation of inframarginal rents - are almost exclusively focused on the remuneration of electricity producers - whether it is insufficient to maintain and develop the production park or too high in relation to their production costs - and almost entirely ignore the needs of consumers, in particular energy-intensive industrial consumers, who are the foundations of the European industry and economy.

In fact, just as it is inconceivable that a producer should structurally receive, due to the very organisation of the market, income that exceeds or is significantly lower than a normal return on his assets, it cannot be considered sustainable that the consumer should structurally pay too much or too little for his access to electricity, due to the same organisation of the market, in relation to his constraints or to the economic model in which he is involved.

It will therefore be necessary to clarify, in the proposed mechanisms, the modalities for restoring to each category of consumer the benefit of the full cost of production enabling them to satisfy their needs, according to their profile, their competitiveness constraints, particularly with regard to their exposure to international competition, their capacity to flexibilise their demand, their level of connection, their decarbonisation trajectory and their capacity to make a significant contribution to the decarbonisation of the European economy.

Consequently, UNIDEN's proposal for a recast of the *market design* is based on the following points, which are closely interdependent and which can ensure the overall viability of the system:

1. **A competitive and globally low-carbon electricity production offer based on:**
   - **Long-term contracts (10 years and more)** with electro-intensive industrial consumers allowing a securing of the producers' income and a direct access of the consumers concerned (cf. below) to the production costs and to the quantities produced by these production assets in exchange for a long-term sharing, within well-defined limits, of certain industrial risks. These long-term contracts could be coupled with support for direct or indirect investment (through their connection) in production facilities, whether they be large-capacity renewable assets, the renewal of nuclear units or new nuclear units;
   - **Contracts for Difference (*CfDs*),** whose reference price would be set by a regulatory mechanism (for the purpose of good cost control) or by a call for tenders, making it possible to ensure a guaranteed income for electricity producers while guaranteeing a minimum cost for the community (in particular by limiting the risks and thus reducing the financing costs). These *CfDs* would be open, for industrial consumers in general, as a priority to installations that need a high degree of visibility and that face significant investment costs;
   - **The wholesale market**, or *dispatching* market, which allows flexible production and consumption facilities to make the most of this flexibility and producers under long-term contracts or *CfDs* to make the most of their marginal availabilities, with the *ultimate* aim of optimising the cost of short-term balancing and the mobilisation of all the production or consumption assets concerned.
2. **Differentiated consumer typologies which, symmetrically, would have access, according to objective characteristics, to these different tools, directly or through suppliers:**
   - **Residential consumers** with access to tariffs, regulated and/or constructed by piling up the costs of the *CfDs* and the wholesale market, who can legitimately claim to have access to a transparent, accessible price according to their consumption profile;

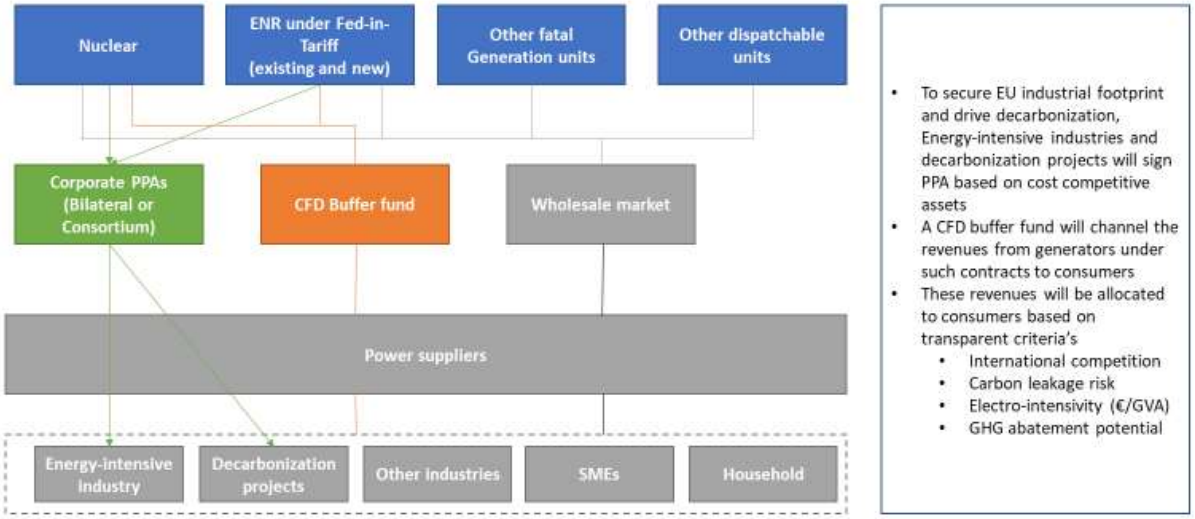
- **Small and medium-sized companies, mainly in the tertiary sector**, which also expect an affordable and low-volatility price but for which electricity generally represents a negligible part of their cost price;

- **Small industries** who could have access to *CfDs* for the most part and, depending on their profiles, to the wholesale market to valorise certain types of production and for whom the cost of electricity is one of the elements - but among others - of their global competitiveness;

- **The electro-intensive industries,** which could have access, for their current needs, to a mix of long-term contracts, *CfDs* and the wholesale market, depending on their consumption profile, the share of the cost of electricity in their cost price and their exposure to international competition, in addition to maintaining a overall electricity price based on these different criteria (levels of taxation and differentiated transport tariffs, valorisation of flexibility, carbon offsetting, etc.).The objective is to maintain these activities, which are very sensitive to the cost of electricity, particularly exposed to international competition and absolutely essential because they are upstream of strategic European value chains.
  The justification for this particular categorisation lies in the fact that these industries respond in a very concrete way to the fundamental macro-economic objectives of the European Union, be it autonomy and reindustrialisation, innovation, employment and harmonised economic development and *ultimately* growth for the benefit of European citizens. On the other hand, the relocation of these upstream components of the main industrial value chains would lead to an increase in Europe's carbon footprint via the import of equivalent products with a high carbon content, as the study carried out by Deloitte for UNIDEN in 2021 has shown very precisely;

- **Hyper-electro-intensive industrials,** for whom electricity is a raw material and who, for the same reasons, absolutely need access for the bulk of their consumption to very competitive long-term contracts at the global level, with the possibility for the top of their consumption curve to rely on the flexibility of their processes in order to further optimise their supply mix;

- **Energy-intensive industrials with direct or indirect decarbonisation projects** through electrification or the use of low-carbon hydrogen **or who contribute, through the products they manufacture, to the decarbonisation of the European economy** and whose long-term electricity competitiveness is a *sine qua non* condition for the realisation of these projects, which should have access to long-term contracts based on decarbonised production means at a price allowing their decarbonisation or the competitiveness of their products for decarbonisation, subject to demonstrating the relevance of their projects (in MWh of electricity consumed per tonne of CO2 or in euros invested per tonne of CO2 avoided) in order to avoid directing electricity production capacities that are still constrained towards projects that are not in line with the European objective of carbon neutrality in 2050.



Response to the consultation

Q1. To which category do you belong?

Industrial consumer and associations

Making Electricity Bills Independent of Short-Term Markets
Power purchase agreements

Q1. Do you consider the use of PPAs as an efficient way to mitigate the impact of short-term markets on the price of electricity paid by the consumer, including industrial consumers?

Low-carbon power generation - whether nuclear (from existing and future generation) or renewable (onshore and offshore wind, solar, hydro, etc.) - is characterised by very significant levels of investment and low operating costs. To reduce the cost of capital, guaranteed off-take of generation over the long term is essential. **The conclusion of long-term contracts at the level of production costs + reasonable margin with consumers is fully consistent with this new paradigm** compared to "historical" thermal production from fossil fuels (oil or gas based "flame" power plants) characterised by significant investment costs and high operating costs depending on the cost of access to these fuels.

UNIDEN therefore requests that the acronym PPA - literally Power Purchase Agreements - should not be reserved for long-term contracts based on renewable assets only, but should apply generically to all long-term contracts based on low-carbon production assets, including nuclear power assets. There is in fact no difference in purpose - the provision of low-carbon electricity to consumers - and in the production cost structure between these different contracts (see above).

This long-term contractualisation at a reasonable production cost plus margin, which is fully consistent with the structure of the full cost of electricity production, must also be accompanied by support for investment. Indeed, as costs are essentially linked to investment, support for investment coupled with a long-term contractualisation seems to be the most efficient economic model for the community in the future, in comparison with *feed-in tariffs* and *One way CfDs which* have been in force for many years and whose budgetary cost has been very high. This support scheme is the one that has been chosen with the Inflation Reduction Act in the US.

Furthermore, low-carbon electricity, with its predictable production cost over time, must be able to be targeted as a priority to the uses that need it most, and in particular to energy-intensive industries in international competition and upstream of strategic value chains or for their decarbonisation projects.

Q2. Please describe the barriers that currently prevent the conclusion of PPAs.

The main barriers identified by UNIDEN are the following:

- The price level of electricity, which is most often a function of the wholesale market price, which is itself rarely representative of production costs;
- For PPAs backed by wind and solar assets, the intermittency of the generation is not suitable for continuous industrial processes - which is the case for almost all electro-intensive companies, which therefore have a *baseload* consumption profile;
- Existing support mechanisms, such as *feed-in-tariffs* or *CfDs* with the state as counterpart, are often more remunerative and considered less risky than a long-term contract with an industrial;
- Counterparty risk for project developers and their creditors;
- The absence of a guarantee in the event of a consumer default;
- The fact that long-term contracts are considered as cases of market-foreclosure when they are signed in good faith (at arm's length) by producers wishing to secure their sales and consumers wishing to secure their purchase costs, as in many other markets;
- The level of guarantee required by project developers from industrial consumers. These levels are not achievable for low-margin or developing companies ("scale-ups").

Q3. Do you consider that the following measures would be effective in strengthening the roll-out of PPAs:

(a) pooling demand in order to give access to smaller final customers,

There are already several possibilities to aggregate demand: beyond the ordinary role of suppliers, this type of service is now offered by many brokers, purchasing groups or purchasing consortia. So there does not seem to be a market failure in this respect. It is important to ensure that these services are effectively accessible to small and medium-sized enterprises, especially with regard to the cost of these services and the comprehensibility of these service offers, not to mention the guarantees involved.

(b) providing insurance against risk(s) either market driven or through publicly supported guarantees schemes (please identify such risks),

The introduction of specific insurance policies for this type of contract would indeed help to secure the business plan of renewable asset developers and limit the counterparty risk, which is of course significantly higher in the case of long-term commitments. The setting up of a guarantee fund, self-funded by the premiums paid by the covered producers and the recovery part of the surplus when markets are high, could curb such a risk.

(c) promoting State-supported schemes that can be combined with PPAs

Yes, the introduction of public support schemes for investment in renewable capacity would certainly be able to encourage the conclusion of PPAs. It is also certainly the most effective way of stimulating the development of new low-carbon generation capacities where almost all the production costs are borne by the investment.

(d) supporting the standardisation of contracts,

Standardisation of contracts is the responsibility of suppliers. It may make sense for some categories of consumers, especially the smaller ones, but is not necessarily a good approach for large industrial consumers, especially energy intensive ones, as their processes are often quite specific, as are their decarbonisation projects.

(e) requiring suppliers to procure a predefined share of their consumers' energy through PPAs

Requiring suppliers to have a proportion of their customer portfolio in the form of PPAs may artificially increase the demand for such PPAs, without corresponding to real customer needs, and cause a crowding out effect on other consumers. This proposal should therefore be discarded.

(f) facilitating cross-border PPAs.

Long-term contract holders should be guaranteed priority access to interconnectors for an equivalent period. This has been the case for many, many years where long-term contracts between generators have benefited from free interconnectors. The June 2019 recast of the Regulation on the internal market in electricity (now Regulation 2019/943) has radically changed the original rules. The question remains as to how to give long-term visibility to such contracts at a lower cost.

While cross-border PPAs are available through the establishment of financial contracts, IFRS rules require them to be recorded in the consumer's EBITDA at fair market value (*Mark-to-Market)*. This financial reporting requirement represents a very significant barrier for some consumers.

Q4. In addition to the options proposed in question 3, do you see other ways in which the use of PPA for new private investments can be strengthened via a revision of the current electricity market framework? If yes, please explain which rules should be revised and the reasons.

Long-term contracts - whatever the underlying low-carbon assets - are a real market tool to meet the needs for visibility of both producers and consumers, especially industrial ones.
And, among the different categories of consumers, it is clear that those who most need visibility on their electricity supply costs are the electro-intensive industries.

A financing scheme for investment in low-carbon production assets coupled with long-term contracts targeted at electro-intensive industries subject to international competition, for their current and future needs (particularly if the latter need to decarbonise their activity through its electrification or to offer the market products that reduce dependence on fossil fuels) would make it possible to reconcile the objectives of energy transition and maintaining a low-carbon industry in Europe.

In addition, the issue of the intermittency of certain low-carbon production assets (wind, photovoltaic), which is often an obstacle to the conclusion of long-term contracts with electro-intensive industrialists because of their base load consumption, could be addressed by creating:

- a fund to share the market risks associated with the management of intermittent power in order to benefit fully from the proliferation of intermittent production facilities in Europe;
- a system for backing some of these long-term contracts with hydroelectric assets or for privileged access to storage facilities as they are developed;
- a mechanism for valuing the flexibilities of industrials, when this flexibility effectively mitigates the impact of intermittency.

We also understand that the Commission wishes to give greater support to the conclusion of long-term contracts for small and medium-sized enterprises. Beyond the fact that these are not necessarily the ones whose business model requires this type of contract, such an orientation of these contracts according to the size of the companies would not allow the real needs and challenges of decarbonisation to be taken into account, nor the exposure to international competition.
The size of the consumer company should not be a discriminating factor in the aid granted for the conclusion of long-term contracts.

Q5. Do you see a possibility to provide stronger incentives to existing generators to enter into PPAs for a share of their capacity? If yes, under which conditions? What would be the benefits and challenges?

There is undoubtedly a possibility - and beyond that a necessity - to encourage producers to conclude long-term contracts by means of investment support and by setting up public guarantees on consumer withdrawals. The main difficulty will certainly come from the resistance to change of producers who currently benefit from highly remunerative schemes.

Periods of very high market prices such as the one we are currently experiencing reinforce the difficulties of signing competitive long-term contracts, given that every producer naturally makes trade-offs between the expectation of profit on short-term markets and the projected profitability of long-term contracts.

It is therefore essential that PPAs are concluded at the level of production costs plus a reasonable margin.

Q6. Do you consider that stronger obligations on suppliers and/or large final customers, including the industrial ones, to hedge their portfolio using long term contracts can contribute to a better uptake of PPAs?

No, it is certainly not by making it compulsory for suppliers and/or large industrial consumers to cover all or part of their portfolio by long-term contracts that we will encourage the development of the supply of such contracts.
On the contrary, such an obligation would risk further accentuating the competitiveness deficit of the European industry, increasing the cost of supply to consumers. The only way to stimulate the development of long-term contracts is to make them competitive and well adapted to the needs of each category of consumers.

Q7. Do you consider that increasing the uptake of PPAs would entail risks as regards:

(a) Liquidity in short-term markets ;

No, because balancing is done on the spot market.

(b) Level playing field between undertakings of different sizes ;

Since long-term contracts should be reserved for certain categories of consumers and differentiated between them, the question does not arise.

(c) Level playing field between undertakings located in different Member States ;

Yes, without question.

(d) Increased electricity generation based on fossil fuels

No, on the contrary.

(e) Increased costs for consumers

Yes, if such contracts were compulsory and focused on SMEs for most of the available volumes to the detriment of industrial consumers, especially electro-intensive ones.

If yes, how can these risks be mitigated?

By reserving long-term contracts for certain categories of industrial consumers, primarily electro-intensive consumers, without making them an obligation and therefore without targeting them at SMEs.

Forward Markets

Q1. Do you consider forward hedging as an efficient way to mitigate exposure to short-term volatility for consumers and to support investment in new capacity?

No, because futures hedging tools have insufficient maturity (maximum 2-3 years), have insufficient liquidity and price formation is essentially based on the best estimate of the future *spot* price.

Moreover, forward hedges include a risk premium linked to the probability of supply shortages estimated by market players, which is passed on in full to consumers, who are thus doubly penalised since they also suffer from any supply shortages or disruptions.

Q2. Do you consider that the liquidity in forward markets is currently sufficient to meet this objective?

No, it is not and this liquidity will always be structurally insufficient.

Q3. In your view, what prevents participants from entering into forward contracts?

The main obstacles identified are: the price levels offered, the short maturities, the lack of visibility on the business models and, for some, the long-term financial commitment to be made.

Q4. In your view, would requiring electricity suppliers to hedge for a share of their supply be beneficial for consumers and for retail competition?
It is basically the responsibility of suppliers to cover part of their supply in the long run, which they already have to do for the benefit of consumers.

Q5. Do you consider that the creation of virtual hubs for forward contracts complemented with liquid transmission rights would improve liquidity in forward markets? If yes, do you consider that such virtual hub(s) should be developed at national, regional or EU level?
A priori, the creation of "virtual hubs" aimed at increasing the liquidity of futures contracts would in no way be a structural response to market deficiencies and therefore does not deserve to be encouraged.

Q6. in case you have experience with the existing virtual hubs in the Nordic countries, how do you rate this experience?
Don't Know

Q7. In your view, what would be the possible ways of supporting the development of forward markets that could be implemented through changes of the electricity market framework?

The development of futures markets cannot be an objective in itself of the reform of the market framework to address the relevant long-term signals, because of their structural shortcomings that cannot be remedied. An efficient reform of the market in this sense will require the development of long-term low-carbon contracts for certain well-defined categories of industrial consumers, coupled with a Contracts for Difference (*CfD*) architecture for the benefit of other categories that need some stability in their electricity access prices.

Contracts for difference

Q1. Do you consider the use of two-way contracts for difference or similar arrangements as an efficient way to mitigate the impact of short-term markets on the price of electricity and to support investments in new capacity (where investments are not forthcoming on a market basis)?

CfDs can undoubtedly be an effective means of financing reinvestment in existing low-carbon production facilities and their renewal through investment in new capacity; in particular for nuclear power assets, given the scale of the financing resources to be mobilized over the long term and therefore the requirement for recurrent *cash flows* to be generated by these same assets, it clearly appears that this is the only system compatible with a market organization, as soon as we leave a regulated price regime.

Nevertheless, it is important that such *CfDs* are bidirectional, with a "downstream" contract (supplier/consumer) passing through the market that is directly or indirectly backed by an "upstream" contract (producer/supplier) so that the final consumer *ultimately* benefits from a cost of access to electricity that structurally reflects the cost of production of upstream assets.

The setting of the reference price for CfDs will be crucial to ensure access to electricity at the cost of production and at a competitive price for the consumer. Consultations will be necessary between governments, industrial consumers and producers.

In addition, *CfDs* will need to incorporate incentive regulation, so as to maximize the output of the assets concerned and maintain a minimum price signal that encourages generators to participate in the supply/demand balance on the grid.

Q2. Should new publicly financed investments in inframarginal electricity generation be supported by way of two-way contracts for differences or similar arrangements, as a means to mitigate electricity price spikes of consumers while ensuring a minimum revenue?

Yes (see answer Q1 above) insofar as such contracts should make it possible to establish real competition in production and to reduce costs for the electricity system and to have a competitive cost for consumers (depending on the reference price in the contracts, which must reflect production costs), taking into account, moreover, the production maximisation objectives that will have been assigned to the CfD winners.

Q3. What technologies should be subject to two-way contracts for differences or similar arrangements and why?

The technologies to which *CfDs* could be applied are: nuclear (existing and future), photovoltaic, onshore wind, offshore wind, run-of-river hydro, biomass/biogas, waste, innovative and low-carbon production technologies.

Q4 What technologies should be excluded and why?

- Coal-fired power stations depreciated assets
- Combined cycle gas turbine (CCGT) depreciated assets
- Hydroelectric generation from reservoirs
- Electricity storage systems
- Demand Side Response mechanisms

Q5. What are the main risks of requiring new publicly supported inframarginal capacity to be procured on the basis of two-way contracts for difference or similar arrangements, for example as regards of the impact in the short-term markets, competition between different technologies, or the development of market based PPAs?

There is no foreseeable impact on the functioning of the short-term market, on competition between different technologies, or on the development of long-term contracts.

Q6. what design principles could help mitigate the risks identified in question 4, in particular, in terms of procurement principles and pay out design? Should these principles depend on the technology procured?

The guiding principles for addressing the above-mentioned risks are, on the one hand, the use of tenders and, on the other hand, the appropriate regulation of sales prices. This also lies in the setting of the reference price for CfDs.

Q7. How can it be ensured that any costs or pay-out generated by two-way CfDs in high price periods are channeled back to electricity consumers? Should a default approach apply, for example, should these revenues or costs be allocated to consumers proportionally to their electricity consumption?

From the point of view of the large industrial consumers represented by UNIDEN, this is the key issue. The two-way *CfD* system can only work if it includes a guaranteed "mirror" mechanism for the benefit of consumers, with the "downstream" *CfD* being a reproduction, adapted to different consumer profiles, of the "upstream" *CfD in the* form of tariff grids and long-term contracts.

Thus, the tariff grids will have to be differentiated according to the externalities of each consumer. For example, a residential consumer who heats with electricity imposes significant costs on the electricity system that he does not fully bear, due to the need to oversize the generating fleet, interconnections, and the network, to develop flexibility, which has an impact on the modulation of the nuclear fleet and therefore on the unit cost of each MWh produced, and finally to ensure the protection of priority or vulnerable consumers. These costs are borne by the other categories of consumers.

On the other hand, an electro-intensive industrial consumer, with a basic or anti-cyclical consumption profile that has significant flexibilities, placed upstream of strategic value chains or that must finance a decarbonization project through electrification, must be able to access a competitive tariff.
Therefore, the general principle which was laid down in Article 10 of Council Regulation (EU) 2022/1854 of 6 October 2022 *on an emergency intervention to address high energy prices* should be included in the envisaged reform package:
"*Member States shall ensure that all surplus revenues resulting from the application of the cap on market revenues are used to finance measures in support of final electricity customers that mitigate the impact of high electricity prices on those customers, in a targeted manner*."

In addition, a very important issue not addressed in this consultation is who will pay when the market price falls below the CfD pivot price.

Q8 What should be the duration of a two-way CfD for new generation and why? Should this differ depending on the technology type?

Depending on the technology and their depreciation period, between 15 and 40 years.

Q9. should generation be free to earn full market revenues after the CfD expires, or should new generation be subject to a lifetime pay-out obligation?

In this respect, it seems appropriate to introduce obligations in certain types of *CfDs* for the operators of the assets concerned to carry out, at the end of their initial operating life, upgrades with a view to extension (*revamping*).

Q10. Without prejudice to Article 6 of Directive (EU)2018/20016, should it be possible for Member States to impose two-way CfDs by regulatory means on existing generation capacity? If such possible use of

regulated CfDs for existing generation is deemed appropriate, should the obligation apply to all types of existing inframarginal generation or be limited to certain types of generation (and if so, which types)?

In general, Member States should be given the possibility, in the context of their own energy policy choices and depending on the nature of their current and future electricity mix, to impose, by law, the conclusion of bi-directional *CfDs* on all or part of the categories of inframarginal assets, provided that they demonstrate that this regulatory approach is the most appropriate way, in the national context, to meet the European Union's Green Deal objectives of reducing GHG emissions by 40-45% by 2030 and beyond to the overarching objective of carbon neutrality by 2050.

Q11. Under what terms and conditions could regulated two-way CfDs on existing generation capacity be imposed?

The regulation of *CfDs will* have to take into account the legal and economic characteristics of the different modes of low-carbon electricity generation:

- Weight of public decision: predominant in the nuclear field, significant for ENR;
- Importance of investments and the weight of their financing;
- Predominance of fixed costs.

Q12. How would you rate and address the following potential risks as regards the imposition of regulated CfDs on existing generation capacity?

(a) legitimate expectations/legal risks;

Low

(b) ability of national regulators/governments to accurately define the level of the price levels envisaged in these contracts;

Overall average :

- low for RES, for which robust data are available and where there is sufficient competition,
- Good for existing nuclear power, but at this stage limited for future new nuclear power (from 2035 for France) for which it will be necessary to define an appropriate mode of analysis and control (respective roles of the energy regulatory authorities and the budgetary and accounting control bodies of the public authorities (notably the Court of Auditors in France)

(c) locking in existing capacity at excessively high price levels determined by the current crisis situation;

The risk of locking in contracts at an excessive price level will basically be limited by the availability of sufficient excess production capacity, which will also contribute to security of supply and decarbonization.

In addition, the structure of production costs, with the predominance of fixed costs, will also limit the risk mentioned. And when this is the case, the regulatory mechanisms adopted will mitigate this risk.

(d) impact on the efficient short-term dispatch.

The impact will be low if incentive regulation is put in place

Q13. Would it be enough for existing generation to be subject only to a simple revenue ceiling instead of a revenue guarantee?

No, existing generation assets, especially the most capital-intensive ones, first and foremost nuclear, need to generate recurring revenue streams that are predictable, or even guaranteed, so that consumers have the competitiveness and visibility they need, which a simple cap on the revenue generated could not provide

Q14. What are the relative merits of PPAs, CfDs and forward hedging to mitigate exposure to short-term volatility for consumers, to support investment in new capacity and to allow customers to access electricity from renewable energy at a price reflecting long run cost?

The three types of tools (long-term contracts on low-carbon assets, *CfDs* and forward hedging market instruments) will have to be subject, depending on the electricity mix of each Member State, its development potential in each category of low-carbon assets and the energy policy choices that will have been made, to specific combinations specific to each Member State, in order to trigger investment projects for new capacities and to give consumers access to price levels in line with long-term production costs.

Accelerating the deployment of renewables

Q1. Do you consider that a transmission access guarantee could be appropriate to support offshore renewables? Please explain and outline possible alternatives.

Don't Know

Q2. Do you see any other short-term measures to accelerate the deployment of renewables? If yes, please specify.

The relevant levers are in place; it is up to the project leaders to decide on them, by activating them but, of course, taking a share of the risk, as with any project, and to put together their financing and ensure that they are carried out within the time and cost limits set.

(a) at national regulatory or administrative level,
No overall need identified

(b) in the implementation of the current EU legislation, including by developing network codes and guidelines,
No overall need identified

(c) via changes to the current electricity market design?
No identified need for short-term changes to the existing market framework

Q 3: How should the necessary investments in network infrastructure be ensured? Are changes to the current network tariffs or other regulatory instruments necessary to further ensure that the grid expansion required will take place?

Perfect control of network infrastructure costs is essential from our point of view as consumers, as we will bear the impact in transport tariffs, which implies strict planning and control of investments at the level of each Member State but also as much coordination as possible between Member States, in order to avoid stranded assets.

This planning must not, of course, be to the detriment of the priorities and constraints of the major industrial consumers and of the direct or indirect decarbonization trajectories (in particular via hydrogen) that will have been adopted.

Limiting revenues of inframarginal generators

Q 1. Do you consider that some form of revenue limitation of inframarginal generators should be maintained?

In the current market framework, inframarginal rents are structural and derive directly from the price formation mechanism on the activated marginal unit, whose full production cost is by construction higher than that of inframarginal units.

The construction of the market is based on the assumption that the average of marginal prices over a year is roughly equal to the average of full production costs. This would be verified if it were possible at each moment to activate the most efficient power plant at a given moment or, on the contrary, to withdraw the least efficient power plant from the market at the desired moment. In practice, this flexibility in the management of production assets obviously does not exist and therefore the price is formed either at a level that is too low to compensate for the full cost of production or too high, in which case undue profits are created.

Only a reform of the price formation mechanism can avoid this problem. On the other hand, the implementation of a generalized taxation of inframarginal incomes would suppose to have a precise evaluation and would thus imply to really put in competition the production tools with all the related difficulties.

The use of *CfDs* could provide a solution in this respect, by limiting the income of producers who refuse to sign *CfDs*. Indeed, in this case, the margin they enjoy could be legitimately considered as undue since the economic risk is covered by consumers.

Q2. How do you rate a possible prolongation of the inframarginal revenue cap according to the following criteria:

(a) the effectiveness of the measure in terms of mitigating electricity price impacts for consumers,

As things stand, the cap on inframarginal rent that has been in place for some months now has no impact on the extremely high market prices borne by consumers and only serves to finance *ex-post* aid measures under the temporary crisis framework adopted by the Commission. Moreover, they have not been thoroughly defined to ensure that they have been set at the optimal level.

(b) its impact on decarbonisation,

Similarly, no impact has been identified or is foreseeable on the decarbonisation process itself and its pace, even though they have provided Member States with additional budgetary resources which they may have decided to allocate to the financing of decarbonisation plans

(c) security of supply,

No impacts identified or foreseeable

(d) investment signals,

No impact, since the introduction of capacity mechanisms has demonstrated, if proof were needed, that no producer in Europe was investing on market price signals. The practical proof of this was explicitly provided since, during the eighteen months of the energy hyper-crisis that consumers in Europe were hit hard by, no significant decision to invest in additional production tools was taken, despite the exceptional profits made by electricity producers.

(e) legitimate expectations/legal risks

Don't Know

(f) fossil fuel consumption,

Don't Know

(g) cross border trade intra and extra EU,

There are practically no electricity purchase/sale transactions with areas bordering the European electricity area

(h) distortion of competition in the markets,

Don't Know

(i) implementation challenges.

Don't Know

Q.3. In case you consider maintaining such a revenue limitation warranted, in what situations should it apply? How should the level of the cap be defined?

The competent market regulator (CRE in France) should be given the power to set reference prices, based on benchmarks established from bids received in the context of calls for tender, adjusted according to the location and technical characteristics of the projects.

Q.4. Should the modalities of such revenue limitation be open to Member States or be introduced in a uniform manner across the EU?

Ideally, standardization should be encouraged at European level but, failing that, Member States that do not wish to adopt such an approach should not be allowed to obstruct its implementation by those that do.

Q.5. How can it be ensured that any revenues from such limitations on inframarginal revenues are channelled back to electricity consumers? Should a default approach apply, for example, should these revenues be allocated to consumers proportionally to their electricity consumption?

Revenues should be directed primarily to those consumers who pose the least risk to the electricity system and who, beyond that, contribute to its balancing and generally to its proper functioning, without introducing strict proportionality to their consumption.

Alternatives to Gas to Keep the Electricity System in Balance

Q1. Do you consider the short-term markets are functioning well in terms of:

(a) accurately reflecting underlying supply/demand fundamentals,

No, short-term markets are undoubtedly too volatile and are certainly manipulable.

(b) encompassing sufficient liquidity,

This is not the case in France.

(c) ensuring a level playing field,

No, they do not contribute to this public interest objective

(d) efficient dispatch of generation assets,

Unquestionably, the short-term markets allow efficient dispatching from the production tools in use

(e) minimising costs for consumers,

No, because on the other hand, they do not minimize the costs for the consumer in any way, as he pays the price of the most expensive plant every hour of the year, which therefore increases his average annual cost

(f) efficiently allocating electricity cross-border?

Yes.

Q2. Do you see alternatives to marginal pricing as regards the functioning of short-term markets in terms of ensuring efficient dispatch and as regards the determination of cross border flows?

Alternatively, *dispatching* could be carried out by the transmission system operators (TSOs). For example, outside Europe, most regions of the world do not have a *spot* market and the TSOs manage to balance the costs of the network without any evidence of additional costs for the end consumer.

Q3. How can the EU emission trading system and carbon pricing incentivize the development of low carbon flexibility and storage?

The EU ETS does not seem to be the right tool to encourage the development of low carbon flexibility and storage. Indeed, it increases the *spot* price on the wholesale market when the marginal power plant is running on gas, coal or at the price of hydroelectricity storage, i.e. 80 to 90% of the time. The price in the "off-peak" period is not a priori increased. Thus the EU ETS could eventually increase the "peak/off-peak" *spread*, but at a prohibitive price for the consumer, thus strongly penalizing the decarbonization of the industry by a disproportionate cost passed on to the consumer.

Q4. Do you consider that the cross-border intraday gate closure time should be moved closer to real time (e.g. 15 minutes before real time)?

If the dispatching role were transferred to the TSOs, this would indeed be the case.

Q5. Do you consider that market operators should share their liquidity also for local markets that close after the cross-border intraday market? What would be the advantages and drawbacks?

No

Q6 Would a mandatory participation in the day-ahead market (notably for generation under CfDs and/or PPA's) be an improvement compared to the current situation? What would be the advantages and drawbacks of such approach?

No, compulsory participation in the *day-ahead* market would not change the way the price is set on the marginal unit and it would create an additional bridge between the *spot, intraday* and forward markets, the latter will be even more subject to variations in the spot price which would remain the reference price, which is incompatible with the needs of electro-intensive industries.

Q7. What would be the advantages and drawbacks of having further locational and technology-based information in the bidding in the market (for example through information on the composition of portfolio, technology-portfolio bidding or unit-based bidding)?

Efficient access to this type of information would be of interest to market operators

Q8. what further aspects of the market design could enhance the development of flexibility assets such as demand response and energy storage?

The consolidation or even the development of reserves thanks to a long-term remuneration that is a real incentive, the launch of localized calls for tenders and the improvement of the terms of the calls for tenders for shaving, both in terms of duration and remuneration, are relevant tools that must be developed within the framework of the present market reform.

Q9. in particular, do you think that a stronger role of OPEX in the system operator's remuneration will incentivize the use of demand response, energy storage and other flexibility assets?

The flexibilization (*Demand Side Response*) of electro-intensive industrial processes requires very significant investments in their transformation since they were not designed for this, on the contrary. Consequently, remunerating this flexibility primarily through a contribution to the coverage of operating costs would be detrimental to its development insofar as it would compromise the associated economic models. Industrialists need a remuneration that is predictable and as fixed as possible in order to commit themselves: in order to be able to develop these new consumption flexibilities, industrialists need visibility on the revenues to finance the required investments. (cf. Green Flex mechanism, where energy consumption flexibility would first be remunerated by a *feed-in tariff* type system, then progressively by the market)

Q10. Do you consider that enabling the use of sub-meter data, including private sub-meter data, for settlement/billing and observability of demand response and energy storage can support the development of demand response and energy storage?

This measure - which is technical and therefore primarily the responsibility of industry - does not seem to be a priority and does not in any way address the fundamental question of how the market works.

Q11. Do you consider appropriate to enable a product to foster demand reduction and shift energy at peak times as an ancillary service, aiming at lowering fuel consumption and reducing the prices?

Energy suppliers should certainly be obliged to present their customers with such incentive peak reduction offers. It must be said that the current functioning of the market has not allowed such offers to emerge at all.

Q12. Do you consider that some form of demand response requirements that would apply in periods of crisis should be introduced into the Electricity Regulation?

No. The flexibilization of consumption by industrial consumers, a fortiori electro-intensive consumers who most often operate continuous-fire processes, should be remunerated at a level that makes it truly attractive, and cannot under any circumstances be imposed, at the risk of damaging the performance of these industrial tools - and therefore their competitiveness - whose function is to produce what they have been designed and invested for.

Q13. Do you see any further measure that could be implemented in the shorter term to incentivize the use of demand response, energy storage and other flexibility assets? If so, what would that be?

The adaptation of the calls for tenders for *Demand Side Response* seems necessary in order to allow for a more appropriate multi-year fixed remuneration. In this context, industrial consumers' access to the market should be facilitated, so that they can properly value their load shedding.

Q 14: Do you consider the current setup for capacity mechanisms adequate to respond to the investment needs as regards firm capacity, in particular to better support the uptake of storage and demand side response? If not, what changes would you consider necessary in the market design to ensure the necessary investments to complement rising shares of renewables and to better align with the decarbonisation targets?

No, the current capacity mechanisms do not meet the need for storage and flexibility, as they are priced high when market revenues are high and priced low when market revenues are low. So the consumer is paying twice in a way.

In France, the capacity market has undoubtedly led to the formation of undue profits for certain electricity producers, in particular those whose assets were more or less depreciated.

Q 15: Do you see a benefit in a long-term shift of the European electricity market to more granular locational pricing?

In absolute terms, a more localized price mechanism could lead to a more relevant localization of investments and demand, but a contrario, it would create marked distortions of competition and penalize consumers who have contributed to the cost of networks over a long period. This subject is therefore not a priority in the current context.

Better consumer empowerment and protection

Energy sharing and demand response

Q 1. Would you support a provision giving customers the right to deduct offsite generation from their metered consumption?

Yes, favorable

Q 2. If such a right were introduced:

(a) Would it affect the location of new renewable generation facilities?

Don’t know

(b) Should it be restricted to local areas - why?

Don’t Know

(c) Should it apply across the Member State/control/zone - why and what should happen if bidding zones are changed?

Don’t Know

Q 3. Would you support establishing a right for customers to a second meter/sub-meter on their premises to distinguish the electricity consumed or produced by different devices? If yes, what particular issues should be taken into account?

Don’t Know

Offers and contracts

Q 4. Would you support provisions requiring suppliers to offer fixed price fixed term contracts (ie. Which they cannot amend) for households?

Don't Know

Q 5. If such an obligation were implemented what should the minimum fixed term be?

(a) less than one year,

(b) one year,

(c) longer than one year

(d) Other

Q 6. Cost reflective early termination fees are currently allowed for fixed price, fixed term contracts. Should these provisions be clarified? If these provisions are clarified, should national regulatory authorities establish ex ante approved termination fees?

Don't Know

Q 7. Do you see scope for a clarification and possible stronger enforcement of consumer rights in relation to electricity?

Yes, the rights of consumers, in particular those of electro-intensive industries which have their own characteristics, must be strengthened in the sense of sustainable access to competitively priced, predictable and stable electricity.

Prudential supplier obligations

Q 8. Would you support the establishment of prudential obligations on suppliers to ensure they are adequately hedged?

The establishment of prudential obligations on suppliers is certainly an interesting solution which should be further investigated based on an in-depth experience feedback from other markets (insurance, banks) where they are implemented for a long time.

Q 9. Would such supplier obligations need to be differentiated for small suppliers and energy communities. If Yes/No, why (not)?

Don't Know

Supplier of last resort

Q 10. Should the responsibilities of a supplier of last resort be specified at EU level including to ensure that there are clear rules for consumers returning back to the market?

The responsibilities of providers of last resort need to be effectively clarified at national level, but not at European level.

Q 11. Would you support including an emergency framework for below cost regulated prices along the lines of the Council Regulation (EU) 2022/1854 on an emergency intervention to address high energy prices, i.e. for households and SMEs:

(a) If such a provision were established, price regulation should be limited in time and to essential energy needs only?

No, such a provision should also benefit industrial consumers

(b) Would such provisions substitute on long term basis for direct access to renewable energy or for energy efficiency? Can this be mitigated?

No

(c) Would such contracts reduce incentives to reduce consumption at peak times, can this be mitigated?

No

Enhance the integrity and transparency of the energy market

Q1. What improvements into the REMIT framework do you consider as most important to be addressed immediately?

REMIT does not ensure that all available generation is made available to consumers and therefore needs to be reviewed in this sense.

Q2. With regards to the harmonization and strengthening of the enforcement regime under REMIT: what shortcomings do you see in the existing REMIT framework and what elements could be improved and how?

Don't Know

Q3. With regards to better REMIT data quality, reporting, transparency and monitoring, what shortcomings do you see in the existing REMIT framework and what elements could be improved and how?

Don't Know