ECCO
THE ITALIAN CLIMATE CHANGE THINK TANK

Answer to EU Commission's public consultation on electricity market reform

February 2023

Contacts

davide.panzeri@eccoclimate.org – Programme Lead Europe

michele.governatori@eccoclimate.org – Programme Lead Power&Gas

Foreword and executive summary

The lack of long-term contracting of renewable energy can be solved with instruments consistent with the current EU market design, provided some barriers are removed and new tools are developed. Among these:

- An adequate storage capacity is contracted – possibly with centralized auctions as proposed in Italy – and delivered into the market as a tool to offset the risks related to non-programmability in long term energy contracts (both in Power Purchase Agreements and in Contracts For Difference)
- Options to final customers (including residential ones) to cover their consumption with an appropriate share of renewable PPAs are provided
- Design of capacity markets is modified to guarantee a level playing field to demand-side devices and investments
- All barriers to the engagement of demand response are removed, which includes implementation of dynamic retail pricing and full use of the smart meters' capabilities.

Who we are

Q1. To which category do you belong?
(k): ECCO is an independent non-profit think tank dedicated to climate change. It was founded in 2021 with the mission to accelerate climate action in Italy and around the world. (www.eccoclimate.org). Energy is one of ECCO's primary areas of focus.

Making Electricity Bills Independent of Short-Term Markets

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?
Yes.

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

- Complexity in hedging counterparty/volume risks
- Regulatory risk (for example: RES have been subject to changing support schemes and they are currently exposed to windfall profit mitigation measures which bring exogenous uncertainty)

- Value added tax regulation on PPAs in Italy is unnecessarily burdensome: VAT applies to PPAs since they are rated as “speculative” financial tools (see public notice 1/2022 by Italian tax agency)

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,

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

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

(d) supporting the standardization of contracts,

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

(f) facilitating cross-border PPAs.

We support all these measures, especially b). Standardization (d) is also a key prerequisite for our additional suggestion expressed at Q4: development of retail contract schemes that enable the reselling of energy procured through wholesale PPAs.

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.

We see ways to support PPAs which are not directly linked to a revision of the wholesale market. In addition to the points listed in Q3, regulators should support the development of retail contract schemes that enable the reselling of energy procured through wholesale PPAs and certificates of storage capacity to neutralize the profile risk. Such schemes would probably require some retail regulation innovations as

- the option for retailers to reasonably lock-in customers who join a long-term commitment to buy from RES
- a secondary market allowing final customers to exit the contracts with no harm to the supplier
- a market for storage certificates to ease the closing of PPAs or CFDs on (renewable) non-programmable generation capacity

Such an involvement of final customer would reduce the issues in hedging and subscribing wholesale PPAs.

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?

Possibly yes, as an alternative to capacity markets.

A challenge to this measure would be the potential inapplicability to operators which have already sold long term/taken price commitments for the underlying energy, which is the most common scenario for long term management of power plants.

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. We think customers should be provided with more tools, not with hedging obligations. Moreover, assessing the extent of actual hedging in a portfolio is very tricky for regulators, which is also the reason why current measures on windfall profits’ mitigation are in many cases hurting companies who had actually already hedged their position.

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

a. Liquidity in short-term markets;

b. Level playing field between undertakings of different sizes;

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

d. Increased electricity generation based on fossil fuels

e. Increased costs for consumers

a) Liquidity in short term markets: No- we think short term (and balancing) markets are actually needed to mark to market PPAs (and CFDs). That is the way markets work already: most energy flows are hedged long term even if they are exchanged in short term markets.

b) Level playing field between undertakings of different sizes: No if markets (including secondary markets) allow an exchange and fractioning of contracts.

c) Level playing field between undertakings located in different Member States: this is a key point. While the integration of the EU wholesale energy markets has been mostly a success, retail markets have not integrated at all: different rules for participating to different countries' markets, different support schemes, different tax structures. Country-based rules on PPAs might make it worse and – if patchy – even endanger the wholesale market integration.

d) Increased electricity generation based on fossil fuels: No, unless fossils are given (further) undesirable regulatory advantages.

e) Increased costs for consumers: No, if net effect is increasing competition, transparency and contestability.

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?

Yes.

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

Possibly not and for sure not after the energy shock struck. It is currently common experience, for example, a failure by retailers to offer end customers fixed prices at reasonable conditions, because of lack of hedging opportunities.

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

Nothing prevents it. However, uncertainty about future scenarios and policies is huge. For example: while we are decarbonizing the economy, we are also pushing stranded investment in gas infrastructure which will still be in operation when gas consumption should be a fraction of what it is today. Such inconsistent policies do not help market participants in being sure about the overall direction and pace of travel towards decarbonisation.

Q4. In your view, would requiring electricity suppliers to hedge for a share of their supply be beneficial for consumers and for retail competition?

If as hedging we mean favouring retail certificates of renewable origin and contracts to access storage capacity, yes.

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?
Possibly yes. No measure should be implemented at sub-EU level if we want be consistent with the development of a EU wide energy market (including the retail side).

Q6. In case you have experience with the existing virtual hubs in the Nordic countries, how do you rate this experience?
No experience.

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?
Spot markets need to be as efficient as possible: liquid forward markets require liquid spot markets in order to correctly and transparently evaluate portfolios and risks.

In terms of retail market regulation/support, we think standard contracts of virtual RES portfolios should be developed and marketed wholesale, possibly in a State-run marketplace, in order to allow retailers not integrated with RES generation to easily sell power from RES by covering it with such contracts.

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)?
We do.

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?
Possibly yes, as a further option with respect to entering a market-based PPA.

Q3. What technologies should be subject to two-way contracts for differences or similar arrangements and why?
Technologies with a high ratio of fixed over variable costs have the most interest to join such CFDs.

Q4. What technologies should be excluded and why?
If the strike price is set competitively (no subsidy), no exclusion is needed. If the strike price is subsidized and its risk is socialized with final customers, only technologies with positive externalities not accounted for in the spot market price should join.

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?
[no answer]

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?

Principles should depend on plants' performance (including externalities – i.e.: climate impact), and so indirectly on technology itself.

Q7. How can it be ensured that any costs or pay-out generated by two-way CfDs in high-price periods are channelled 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?

Final customers should be organized so they are the actual counterparts of the CFDs, possibly through an institutional broker. In this way the wholesale price set long term by CDFs would be passed through by design.

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

Ideally, it should be as long as the expected payback period of the technology. Since the payback period depends on the remuneration and it is differentiated by technology, differenciated standard lengths might be set. (See also next reply please).

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?

By definition, no obligations can last longer than the contract. Since long term strike price attractiveness depends on the contract's length, the latter might theoretically even be lifetime long, but this would probably add unnecessary issues in evaluating the contract in terms of risk assessment.

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)?

Imposing retroactive duties in terms of CFDs undermines the confidence in future investments and it can disrupt the economics of plants which might have already hedged (with voluntary CFDs) their production, so such imposition should be avoided.

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

(Pls. see answer 10)

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;

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

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

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

(a) legitimate expectations/legal risks: high

(b) ability of national regulators/governments to accurately define the level of the price levels envisaged in these contracts: high, but a solution is in reply 7 (this section): customers should be organized so they behave as the actual counterparts of the CFDs.

(c) locking in existing capacity at excessively high price levels determined by high current crisis situation: high. Solution is introducing a competitive mechanism to set the long term strike price

(d) impact on the efficient short-term dispatch: low

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

A revenue ceiling already applies to the capacity mechanisms based on reliability options, as the Italian and Irish ones. It can be done in exchange of a capacity fee provided this fee is not too high and that it does not introduce distortions in terms of fossils energy lock-in as is the case in the Italian capacity market, which needs profound adjustment in order to correct these glitches.

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?

Such instruments are relatively interchangeable, since the physical delivery of the underlining energy is not the key point, the latter being the revenue stream guarantee.

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.

As far as we understand, grid connection guarantee is already ensured by network codes. If “access guarantee” means advantages in terms of timing or priority, it would turn into a subsidy not appropriately treated as such.

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

- **a) at national regulatory or administrative level,**
- **b) in the implementation of the current EU legislation, including by developing network codes and guidelines,**
- **c) via changes to the current electricity market design?**

- a) at national regulatory or administrative level:
  1) Easing the process of potential assessment and the authorization processes
  2) Dropping the no additionality rule of capacity remuneration in capacity markets and RES support schemes
  3) Easing the integration in markets of complementary technologies to RES development, as passive demand response (dynamic retail pricing), active demand response (through effective participation of aggregators in the market design – which also applies to letter b)
- b) In the implementation of the current EU legislation, including by developing network codes and guidelines: Easing the integration in markets of complementary technologies to RES development, as passive demand response (dynamic retail pricing), active demand response (through effective participation of aggregators in the market design – which also applies to letter a.
- c) In terms of changes to the current electricity market design: dropping the not additionality rule of capacity markets to RES support schemes.

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?

We think that the current tariff system is fit to cover all the costs needed. However, the climate risk should be considered in an augmented way when assessing investments, while the value of the continuity of delivery of electricity by the network could be downscaled in relation to the increasing availability of demand-side devices to cope with electric interruptions.

Limiting revenues of inframarginal generators

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

Better not, at least not after the level of prices has re-approached its pre-crisis level.

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,

(b) its impact on decarbonisation,

(c) security of supply,

(d) investment signals,

(e) legitimate expectations/legal risks

(f) fossil fuel consumption,

(g) cross border trade intra and extra EU,

(h) distortion of competition in the markets,

(i) implementation challenges.

a) the effectiveness of the measure in terms of mitigating electricity price impacts for consumers: It is not easy to assess if such a measure determines a reduction in price. Its main goal, to our understanding, is financing the Member States' actions to mitigate the energy bills, which would actually require raising much more money.

b) its impact on decarbonisation: Bad. Not applying the systems to gas and coal and – in the case of Italy – making it tougher for renewables has provided (both in a short and long term perspective) a very bad signal in terms of commitment to decarbonization.

c) security of supply: In the short term: neutral (since margins remain positive for most technologies affected), in the long term: negative because it reduces the incentive to invest risk capital in power generation

d) investment signals: Bad (see answer c)

e) legitimate expectations/legal risks: Not acceptable when applied retroactively, especially to renewables which were legitimately relying on inframarginal revenues to pay back their structurally predominant fixed costs

f) fossil fuel consumption: Bad (see answer b)

g) cross border trade intra and extra EU: Bad, since the measures aren't homogeneous among MSs

h) distortion of competition in the markets: Bad (see g)

i) implementation challenges: Very complex, because power producers often voluntarily hedge long term their production with financial contracts which are difficult to assess. More generally, retroactive norms for margin squeezing can disrupt hedging actions in portfolios, so potentially causing financial distress.

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?

It might be maintained exclusively for plants which don't join PPAs or CFDs and with a very high strike price (current level = 180 €/MWh is reasonable), with an advantage granted to renewables.

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

All measures that interact with the energy markets should be designed and applied at EU level, unless we are prepared to withdraw the objective of building a real single market.

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?

It makes sense using such revenues to mitigate energy bills, provided that the marginal price signal is not disrupted. Therefore, funds should be transferred to energy consumers proportionally to a fraction of their past consumption, with no interference with the market price signal (nor with any charges associated to it).

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,

(b) encompassing sufficiently liquidity,

(c) ensuring a level playing field,

(d) efficient dispatch of generation assets,

(e) minimising costs for consumers

(f) efficiently allocating electricity cross-border?

A distinction should be made between wholesale energy markets, which work fairly efficiently and which have reached an acceptable level of EU integration, and the retail markets. The latter include the MSs' policies on end tariff regulation, state aids to consumers etc. The huge lack of integration and harmonization in retail markets and rules is going to affect increasingly the functioning and efficiency of the European energy sector, because of the ongoing shift towards a much more distributed energy system.

Policies in terms of state aid, energy poverty, industrial policy, taxation deeply affect energy competition and it is key that they are integrated and homogeneous in order the energy markets to function in a real level playing field way.

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?

In the short term, markets work at marginal cost pricing. This is microeconomics much before regulation is involved. Moreover, as the EC document points out, the electricity system increasingly is in need of dynamic pricing in order to trigger various forms of demand response and to make balancing markets more efficient.

Obviously this does not contradict the need for long term price signals and long-term scarcity signals.

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

ETS's price is key for internalizing the carbon cost. However, it does not currently have the dynamics to trigger short terms flexibility.

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)?

[No answer]

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 answer]

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?

Yes, a mandatory participation in the day-ahead market for generation under CfDs or PPA's could be beneficial to liquidity. However, in day ahead marketplaces like the Italian one over the counter deals already are forcedly put into the market, so the residual room for liquidity is not huge.

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)?

[No answer]

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

Member States which have not done so yet should adapt their regulation in order to ease the development of aggregators in the electricity markets.

Since demand response is key in reducing the use of gas in balancing, assets and devices needed for aggregation to work (i.e. IT and communication assets to aggregate devices, which might possibly be regarded as natural monopolies) should be eased with appropriate measures.

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?

Yes. If we look at the Italian case, the TSO is currently incentivized not to rely excessively on buying services in the ancillary services markets, while there is no such caution in requesting large amounts of capacity through capacity market. This should be amended to avoid a distorted preference by TSO in favour of flexible generation (typically gas fired) with respect to demand response.

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?

Demand response's advantages should be apparent in terms of price arbitrage opportunity (energy market) and savings in network balancing (ancillary services market).

Submetering can be useful for automation to work, but it should not be needed for the value of DR to be appreciated and remunerated in the markets. Moreover, making submeters' data official would possibly make their development much more complicated and slow.

Lastly, as we have already mentioned here, official meters should be exploited to their maximum capabilities, which is not happening in Italy also due to lack of dynamic pricing.

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?

It makes sense in principle, but it should be done after having removed all the barriers to short term electricity markets to effectively deliver on that.

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?

Yes.

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?

[No, please see previous answers]

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?

In the Italian capacity market, demand response investments do not have access to 15 years long remuneration contracts, unlike generation capacity. This bias needs to be overcome (see also our reply to Q8 this section.

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

We do.

Better consumer empowerment and protection

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

Generally no, because offsite consumption does not necessarily benefit the power grid nor reduce the use of fossils for balancing.

Q 2. If such a right were introduced:

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

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

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

[Not answered, consistently with what answered to previous question]

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?
Demand response's advantages should be apparent in terms of price arbitrage opportunity (energy market) and savings in network balancing (ancillary services market).

Submetering can be useful for automation to work, but it should not be needed for the value of DR to be appreciated and remunerated in the markets. Moreover, making submeters' data official would possibly make their development much more complicated and slow.

Lastly, as we have already mentioned in this consultation, official meters should be exploited to their maximum capabilities, which is not happening in Italy also due to lack of dynamic pricing.

Q 4. Would you support provisions requiring suppliers to offer fixed price fixed term contracts (ie. Which they cannot amend) for households?
That might make sense if associated to similar requirements from customers' side. For example, a relatively long mutual contractual commitment might make prosumer-like partnerships more feasible.

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

(c) - longer than one year

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?
Termination fees are necessary in order to allow retail PPAs on renewable energy, since an early withdrawal by the end customer can pose serious danger to the ability of hedging the contract itself by the retailer.

Q 7. Do you see scope for a clarification and possible stronger enforcement of consumer rights in relation to electricity?
[no answer]

Q 8. Would you support the establishment of prudential obligations on suppliers to ensure they are adequately hedged?
No, especially because the enforcement would be extremely tricky.

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

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?
Yes.

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?

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

(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?

[no answer]

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?

[no answer]

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?

[no answer]