

Contribution to the European Commission Public Consultation ***Eliminating obstacles to Power Purchase Agreements (PPAs)***

Lisbon, February 20th, 2026

1. Introduction and institutional context

AFIGCEE – the Portuguese Association of Large Industrial Electricity Consumers – represents major electricity-intensive industrial consumers in Portugal, with an aggregated annual consumption exceeding 5 TWh, corresponding to approximately 10% of national electricity consumption and around one third of industrial demand.

Our members operate in sectors such as cement, glass, pulp and paper, chemicals, steel, mining, wood processing and industrial gases. These sectors are highly exposed to international competition and deeply dependent on electricity as a production input.

AFIGCEE is also a member of IFIEC Europe, the European federation of industrial energy consumers.

We welcome the European Commission's initiative to identify and remove regulatory and non-regulatory barriers to Power Purchase Agreements (PPAs). From the perspective of large industrial consumers, PPAs are a key instrument to:

- Facilitate investment in new renewable capacity;
- Reduce exposure to short-term wholesale price volatility;
- Enhance price predictability and industrial competitiveness;
- Support the decarbonisation of industrial processes.

However, structural features of current market design, contractual frameworks, accounting rules and system integration practices continue to limit the large-scale deployment of efficient and industrially compatible long-term contracting.

2. Structural price formation: misalignment between marginal pricing and renewable costs

2.1 The role of short-term markets

Short-term electricity markets perform an essential function in ensuring efficient short-term dispatch of generation assets and scarcity signalling. The marginal pricing mechanism or, more precisely, the *merit cost curve* remains appropriate for generation

operational optimisation but does not provide a cost structure compatible with the continuous production requirements of electro-intensive industry:

- Industrial production depends on predictable average energy costs, not on short-run scarcity signals;
- The pricing mechanism assumes flexibility that heavy industry may not have.

2.2 Long-term price formation and opportunity cost transfer

However, long-term forward markets – and consequently PPA pricing, as renewable generators have limited incentive to contract below forward market benchmarks – remain strongly anchored to short-term marginal pricing expectations, which continue to be influenced by gas-fired generation costs.

As a result, PPA prices tend to incorporate the opportunity cost of the marginal fossil-based market rather than primarily reflecting the levelized cost of energy (LCOE) of renewable generation.

This creates a policy-relevant inefficiency in investment and contracting signals in a system where renewable generation represents the largest share of production (thermal generation is now residual in Iberia), and the long-term cost structure of new capacity is driven by capital expenditure rather than marginal fuel costs. Therefore, an intervention is needed that aims to separate long-term investment contracts from expectations based on fossil-fuel marginal pricing.

Maintaining this linkage:

- Inflates long-term contract prices during periods of high fossil price expectations;
- Reduces the competitiveness benefits expected from renewable deployment;
- Limits industrial uptake of PPAs;
- Slows the scale-up of privately financed renewable capacity.

For PPAs to fulfil their intended role – namely, financing new renewable capacity while offering competitive and predictable prices to consumers – long-term contracts should better reflect renewable investment fundamentals (project LCOE, integration and firmness costs where relevant, a reasonable return, including financing and system integration costs), rather than fossil-based marginal costs.

A more robust long-term contracting environment would support both supply-side investment and demand-side price stability and predictability.

2.3 Structurally addressing long-term price formation

In this context, the challenge is the continued reliance of long-term price formation on fossil-based marginal cost expectations in a system increasingly dominated by capital-intensive, low-marginal-cost renewable generation. As long as long-term contracts and PPAs remain structurally anchored to current short-term signals, they will fail to reflect renewable investment fundamentals and will deliver neither the price stability expected by industrial consumers nor the efficient investment signals required for large-scale renewable deployment. Addressing this misalignment therefore requires targeted policy action at the level of long-term contracting and investment frameworks, but also changes to short-term market design.

3. Contractual and structural barriers to industrial PPA deployment

3.1 Single-supplier constraint at one delivery point

In several Member States, regulatory and market rules prevent a consumer from having more than one active electricity supply contract for the same delivery point. This constraint prevents industrial consumers from establishing competitive multi-supplier structures, as parallel supply contracts and PPAs cannot coexist at the same metering point.

As a result, industrial consumers are effectively forced into “sleeving” arrangements as the only way to combine different contracts, even when such structures are not economically optimal. This limitation hinders portfolio-based contracting strategies, reduces competition in long-term supply, and increases transaction costs.

Allowing multiple active contracts at a single delivery point would significantly increase flexibility and competition in long-term contracting. This should be supported by:

- Standardised contractual formats;
- Clear and harmonised rules for the allocation of consumption volumes between contracts;
- Transparent balancing responsibility arrangements.

Removing this constraint would enable more efficient risk diversification, facilitate multi-buyer and portfolio PPAs, and better reflect the contracting needs of large industrial consumers.

A natural way around this is through CfDs (Contract for Differences); however, CfDs or financial PPAs have some issues that are addressed later in this memo.

3.2 Lack of harmonised “sleeving” frameworks

The integration (“sleeving”) of third-party PPAs into retail supply contracts remains fragmented across Member States. Current frameworks often lack transparency regarding balancing responsible party (BRP) and supplier fees, shaping and balancing cost allocation, and the respective contractual rights and obligations of the parties involved.

This fragmentation increases transaction costs, reduces legal certainty, and limits competition and liquidity in long-term PPA markets. In practice, it weakens the negotiating position of industrial consumers and may discourage PPA uptake altogether.

To accelerate PPA deployment and enhance competition, an EU-level framework for “open sleeving” should be developed. Such a framework should ensure:

- Transparent and non-discriminatory integration fees;
- Standardised and predictable allocation rules;
- Clear and enforceable rights for the integration of third-party PPAs into supply contracts.

Harmonised principles for sleeving would lower entry barriers, facilitate cross-border contracting, and support the development of more liquid and competitive long-term electricity markets.

3.3 Intermittency and industrial baseload demand

Many industrial processes operate on a continuous 24/7 baseload profile, while most renewable PPAs are structured on a *pay-as-produced* basis. As a result, intermittent PPAs are not naturally aligned with industrial consumption patterns.

Bridging this mismatch requires firming and shaping services to match renewable generation profiles with industrial demand, significantly increasing the effective cost of PPAs. These additional costs reduce the economic attractiveness of long-term renewable contracting for industrial consumers.

Strengthening support for non-fossil flexibility solutions – including storage, demand response and hybrid renewable projects – is a key lever to reduce these costs. In parallel,

additional actions are needed to ensure that these benefits translate into more competitive energy prices, notably through:

- Promoting standardised firm or baseload PPA products;
- Developing standardised *profile-shifting* PPA products that include firming and shaping services;
- Standardising contractual clauses addressing zero and negative price hours.

Improving the availability of renewable-backed firm products would make PPAs structurally compatible with industrial load profiles and materially increase their uptake.

While long-term PPAs can provide price hedging and investment signals, they do not in themselves guarantee continuous physical supply for baseload industrial consumers. Without adequate firming, shaping and flexibility solutions, electro-intensive industries remain exposed to wholesale market prices during periods of low renewable generation, which are often characterised by higher price levels.

3.4 System costs, ancillary services and tariff allocation

In addition to energy costs, the overall cost borne by industrial electricity consumers includes a range of system-related charges, notably grid costs and ancillary services. As the penetration of variable renewable generation increases, ancillary services play an increasingly central role in maintaining system balance, frequency control and security of supply.

It is therefore essential that these costs are minimised through the deployment of non-fossil flexibility solutions, including storage, demand response and hybrid renewable projects. However, cost minimisation alone is not sufficient. The method of cost recovery is equally critical for industrial competitiveness and for the efficient functioning of long-term contracting.

In this context, ancillary services should be financed through access/grid tariffs rather than recovered as a surcharge on energy consumption, as is already the case in several Member States. Recovering ancillary service costs through energy-based charges artificially inflates the effective price of electricity, undermines the price signals delivered by PPAs, and disproportionately penalises electro-intensive consumers with stable baseload profiles.

A tariff-based allocation of ancillary service costs would better reflect their system-wide nature, improve transparency, and ensure that long-term electricity contracts can deliver their intended benefits in terms of price predictability, competitiveness and decarbonisation.

4. Accounting treatment and regulatory certainty

4.1 Treatment of financial PPAs (VPPAs)

Financial PPAs (or CfDs) are frequently treated under IFRS 9 as speculative financial instruments subject to mark-to-market accounting, even when the contracted volumes are below the buyer's physical electricity consumption and the contract is clearly intended as a long-term price hedge.

This accounting treatment introduces artificial earnings volatility that is disconnected from the economic substance of the transaction and from the underlying objective of price stabilisation. As a result, instruments that are designed to reduce exposure to electricity price risk may increase reported financial volatility, discouraging industrial consumers from using VPPAs as a hedging tool and limiting their role in financing new renewable capacity.

4.2 Need for clarity and coordination

Accounting certainty is essential to unlock broader industrial participation in long-term electricity contracting. In this context, within its remit and without prejudice to international accounting standard-setting, the European Commission should play a coordinating role at EU level, engaging with IASB and EFRAG to clarify the application of IFRS 9 to financial PPAs that are economically equivalent to supply hedges.

In particular, guidance should:

- Establish clear eligibility criteria enabling hedge accounting treatment where the economic substance of the VPPA corresponds to physical supply and price risk management;
- Distinguish genuine long-term supply hedges from speculative financial positions;
- Reduce divergent interpretations across Member States and audit practices, which currently increase legal and accounting uncertainty.

Such clarification would not weaken financial reporting standards, but rather ensure that accounting outcomes better reflect the underlying risk-management purpose of industrial PPAs.

4.3 Unleashing financial PPAs for industrial users through improved accounting treatment

Without greater accounting clarity, financial PPAs risk remaining a niche instrument despite their potential to support renewable investment and industrial price stability. Ensuring that accounting treatment reflects the economic substance of long-term electricity hedging is therefore a necessary complement to market design and contracting reforms. Regulatory certainty in this area would materially lower participation barriers for industrial consumers and strengthen the contribution of PPAs to the energy transition.

5. System-backed frameworks and grid connection allocation

5.1 Grid connection as a strategic lever

The allocation of new grid connection capacity is a critical and underutilised policy lever to promote long-term electricity contracting. The granting of grid connection rights represents a decisive moment in project development, at which public authorities can introduce competitive mechanisms that shape long-term price outcomes.

In particular, grid connection capacity can be allocated through competitive processes (e.g., auctions) in which developers compete on the long-term price at which they are willing to supply electricity. Using the long-term contracted price as the auction variable allows connection capacity to be awarded on the basis of price-based competition, minimising system costs while ensuring that new capacity contributes to long-term price stability.

Within such competitive processes, Member States could also consider giving appropriate preference to projects whose developers have secured prior commercial offtake agreements with electro-intensive industrial consumers, in particular in sectors identified as being at risk of carbon leakage under the CEEAG¹. Anchoring new

¹ As defined in the European Commission Communication 2022/C 80/01 – Guidelines on State aid for climate, environmental protection and energy 2022 (CEEAG), including the list of sectors exposed to a significant risk of carbon leakage.

renewable capacity in long-term industrial demand can enhance investment certainty, support industrial competitiveness and strengthen the contribution of grid connection allocation to decarbonisation objectives.

In such frameworks, the electricity system, or a public entity acting on its behalf, would act as contractual counterparty or guarantor. The resulting arrangements could take the form of long-term PPAs, Contracts for Difference (CfDs), hybrid models, or structured corporate allocation mechanisms.

Similar approaches have already been applied successfully in several Member States through renewable auctions in which long-term price commitments were central to project selection. By linking grid access to competitive long-term price commitments, Member States can accelerate PPA development, reduce long-term system costs, increase transparency in long-term pricing, and mitigate speculative behaviour around connection rights.

5.2 Compatibility between CfDs and corporate PPAs

Greater compatibility between public CfD schemes and corporate PPAs would enhance revenue stability while preserving industrial contracting flexibility. In particular, allowing hybrid or complementary arrangements – including top-up mechanisms – can reduce downside revenue risk for renewable projects without displacing bilateral contracting with industrial consumers.

However, neither CfDs nor corporate PPAs inherently resolve the mismatch between intermittent renewable generation and the continuous electricity needs of baseload industrial consumers. Their effectiveness therefore depends on complementary access to flexibility, firming and portfolio-based contracting solutions.

Well-designed compatibility frameworks can ensure that public support mechanisms and corporate PPAs are mutually reinforcing. CfDs can provide a revenue floor that lowers financing costs, while corporate PPAs can continue to play a central role in allocating volumes, shaping profiles and anchoring long-term price stability for industrial consumers.

Enhancing such compatibility would increase investor confidence, broaden the range of bankable projects, and strengthen the contribution of corporate PPAs to renewable deployment without undermining market-based contracting.

5.3 The importance of system-backed counterparties and risk mitigation

Large industrial consumers are willing to engage in long-term industrial electricity contracts but continue to face several barriers, including credit exposure concerns, accounting treatment challenges, long-term volume and flexibility risks, and uncertainty regarding regulatory stability.

The involvement of the electricity system – directly or through structured guarantees schemes – as counterparty or risk-sharing entity can significantly reduce these barriers. By lowering counterparty risk and associated credit risk premia, such mechanisms can reduce PPA prices and enable broader industrial participation, including by smaller or medium-sized consumers.

Well-designed system-backed instruments can facilitate multi-buyer structures, enhance liquidity and transparency in long-term markets, and improve access to risk-mitigation tools, while remaining fully compatible with bilateral corporate PPAs. These mechanisms should complement, not replace, market-based contracting, and should ensure that long-term prices reflect renewable investment fundamentals rather than short-term fossil-based expectations.

5.4 System backing and grid connection allocation procedures working in tandem

Strategic use of grid connection allocation, system-backed contracting frameworks and targeted risk-mitigation instruments can play a decisive role in reshaping long-term electricity price formation. By anchoring new renewable capacity in competitive, price-based long-term commitments, these tools can accelerate investment, reduce system costs and enhance industrial price stability. Properly designed, they strengthen – rather than substitute – market-based corporate PPAs and contribute to a more resilient, competitive and decarbonised European electricity system.

6. Recommendations to the Commission

The Commission's forthcoming Recommendation to Member States should:

Address structural long-term price formation

- Recognise the structural link between short-term marginal pricing and long-term forward and PPA pricing as a potential systemic barrier to efficient long-term contracting.

- Encourage contracting approaches that better reflect renewable investment fundamentals by:
 - Using grid connection allocation processes to promote competitive long-term price commitments;
 - Designing auction mechanisms where long-term contracted prices are the primary selection criterion;
 - Facilitating system-backed contracting frameworks, including CfDs, hybrid models and guarantee schemes.

Improve contracting frameworks and market integration

- Promote a more liquid and transparent long-term contracting environment by:
 - Standardising long-term contracts, including firm or baseload PPAs, *profile-shifting* products and clear treatment of zero and negative price hours;
 - Promoting transparent platforms for long-term electricity contracting;
 - Enhancing compatibility between CfDs and corporate PPAs;
 - Supporting non-fossil flexibility solutions to improve renewable firmness;
 - PPA contracts with risk-sharing mechanisms between the generator and the consumer.
- Enable efficient industrial contracting structures by:
 - Allowing multiple supply contracts per delivery point;
 - Enabling multi-buyer and portfolio PPA structures;
 - Establishing harmonised EU principles for open sleeving and transparent integration.

Reduce risk and enhance regulatory certainty

- Coordinate with IASB and EFRAG to provide accounting certainty for financial PPAs (or CfDs) used as long-term supply hedges;
- Encourage tariff designs that recover ancillary service costs through access tariffs, to preserve the integrity of long-term price signals delivered by PPAs;
- Facilitate risk-reduction instruments, including appropriately designed public guarantees and system-backed counterparty mechanisms;
- Ensure regulatory stability and long-term visibility, which are critical for both generators and industrial consumers engaging in long-term electricity contracting.

7. Conclusion - Supporting electrification and industrial competitiveness

Electricity prices in the European Union remain significantly higher than in competing regions, with material consequences for industrial competitiveness. Long-term electricity contracts are therefore an essential tool to support investment in the electrification of industrial processes, provide cost predictability, and anchor decarbonisation strategies. As the generation mix becomes predominantly composed of low-marginal-cost renewable assets, it is increasingly inefficient for long-term price formation to remain structurally anchored to fossil-based marginal pricing expectations.

A rebalancing of the long-term contracting framework – particularly through the strategic use of grid connection allocation, competitive price-based mechanisms and system-backed counterparties – can unlock additional renewable investment, enhance industrial competitiveness, reduce structural exposure to fossil fuel price volatility, and strengthen the resilience of the European electricity system.

For PPAs to be widely adopted by industrial clients, they must offer prices that reflect renewable investment costs (renewable true LCOE) and be compatible with industrial operational and flexibility needs. PPAs need to provide a structural pathway towards a lower-cost, renewable-based electricity system, serving the load curves of large industrials.

APIGCEE remains available to further contribute to the Commission's work on this initiative.