ENTSO-E Options for the design of European Electricity Markets in 2030

smartEn Consultation response

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ENTSO- E

Options for the design of European Electricity Markets in 2030
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Wholesale market products

1. How could European Day-Ahead and Intraday markets be improved to further facilitate market access of RES and Distributed Energy Resources in 2030?

RES and Distributed Energy Resources can more easily access Day-Ahead and Intraday markets with finer time granularity products. In this scenario, it becomes crucial to remove market barriers to aggregators in order to limit market complexity. Enablers of market participation by aggregators are:

- allowing multiple simultaneous bids
- aligning settlement period duration across European market and make 15-minute settlement periods the standard
- moving to real-time markets by reducing the gap between real time and gate closure time
- accurate measurement process to manage their portfolio
- a clear aggregator framework

In addition, the Electricity Market Design already states the need to reduce minimum bid sizes in those markets to at least 500 kW or lower (Electricity Regulation (EU) 2019/943 art. 8).

2. Are there any best practices which could be used as an example?

Countries with the lowest bid sizes are Germany, Greece, Ireland, Slovenia, Spain and Great Britain. They all have minimum bid sizes of 500 kW and in some cases even 100 kW.

RES participation in balancing markets

3. What do you consider to be the main barriers for the participation of RES in balancing markets?

N/A

4. Which kind of support scheme has the least distortive effect on the participation of RES in balancing markets?

Support schemes that insulate RES from market prices impair the participation of RES in balancing markets as they effectively dampen or entirely remove any signal for controllability or flexibility. Such measures are not fit for purpose for a future-looking flexible energy system.

Where RES support schemes are still necessary for example where flexibility remains inadequately valorised by market design, fixed price auctions may offer least distortive effect on the wholesale market. Schemes should be designed to provide exposure to negative wholesale market prices to reveal the wholesale market need for flexibility

5. What do you consider as best practice to the ensure effective provision of voltage control and other non-frequency Ancillary Services (AS) by RES?

In principle, all non-frequency services - including voltage, black start, congestion and re-dispatch – should be openly procured via competitive tenders rather than through opaque bilateral contracts. Open tenders promote competition and can also be a highly effective way of engaging the market to provide solutions to location-specific problems.

In the interim, renewable/hybrid auction designs can be structured to include mandatory provision of services that are not openly procured and should generally encourage stacking applications across available services markets. Promoting the opening of markets for non-frequency services will enable more assets (including DSF) to offer their services and contribute a more rapid decarbonisation of the energy system.

RES Supports and Negative Prices

6. How could market design mitigate the side effects of the interaction of negative prices and RES supported technologies?

Negative electricity prices can be an indicator of insufficient flexibility on the system and should not be regarded as a drawback. The presence of negative prices are important to incentivize flexibility technologies to “step in” and shift energy dispatch from those hours.

Suppressing negative pricing events is not the answer as that will only undermine market signals for flexibility and reduce market opportunities and competition for providers of flexibility. For example, negative pricing events can act as a stimulus to use flexible consumption of appliances to increase self-consumption or to absorb excess RES generation on the network thereby supporting higher RES penetration and integration via end-use sectors.

It is also important to consider the impact of network tariffs and energy taxes on how effectively negative wholesale prices influences market responses. Negative prices will not have the necessary behavioural effect on market participants or consumers if the largest chunk of the energy price remains static. Network tariffs and energy taxes should also be reviewed to provide more dynamic time of use signals that reflect the need for flexibility on the system.

Consumers become active prosumers

7. What do you consider to be the key market design barriers limiting the uptake of DSR?

smartEn acknowledges the correct identification of market barriers for DSR by ENTSO-E and appreciates the use of the smartEn mapping reports as well as the EG3 report as a source for this report. However, there are further barriers for DSR not mentioned in the report, that are still limiting the participation of DSR in the markets. Some of these barriers have been addressed by the EMD and should be implemented by TSOs in a reasonable time frame.

The following is a list of barriers still limiting participation of DSR to different electricity markets.

- a fully developed and implemented **aggregator framework at national level**
- adequate product design, defined from a system-needs perspective, rather than the specific capacities of (traditional) providers, with product definitions that are diverse but compatible, to increase efficiency, enable a standardisation of technology and ensure liquidity across markets
- **Portfolio-based bidding** should always be possible and products should be defined for the largest possible market area relevant to provide a specific service
- **price caps** at wholesale and retail level;
- blunting effects from **ill-designed and allocated taxes and charges**
- **historical overcapacities**, often reinforced through badly designed capacity mechanisms, notably supporting fossil generation assets. E.g., Germany: § 11 (3) EnWG is the basis for the construction of four new gas power plants with 300 MW each as special network-related operating resources;
- **almost no capacity mechanisms that are technology inclusive or dedicated to DSR**. For example, in Germany no storage or demand response systems can participate in the 2 000 MW tenders for capacity reserves due to technical exclusion criteria.
- **Incentive structures for system operators** (especially DSOs, but also TSOs) are tailored towards benefiting from additional physical grid investments (CAPEX), but not from flexibility use (OPEX). These incentive structures favour conventional solutions over DSF.
- **badly designed renewable energy support mechanisms,** such as net-metering, or feed-in premiums, that discourage market participants from providing flexibility;
- **inaccessibility of energy price signals** (both short term and long term) for market participants;
- crucially, **inherent path-dependencies** that favour existing solutions over innovative solutions, due to upfront investment costs, customer acquisition or other barriers.
- Extensive **subsidies for fossil gas power stations** which prevent a level playing field and a fair market.
- Lack of market-based approach. Bilateral deals between System Operators and flexibility providers should be strictly limited to situations where market-based

procurement verifiably cannot deliver. This applies in particular to many capacity mechanisms and interruptibility schemes used today, but also ancillary services procurement in some countries, which cannot be called markets, but indeed mechanisms.

- **Network tariffs that encourage inflexible load behaviour**. Example for Germany: § 19 (2) S. 2 StromNEV encourages inflexible load behaviour for more than 7 000 hours a year. If large energy consumers use their flexibility, they risk falling below the consumption threshold to be eligible for reduced network tariffs.
- **Minimum bid sizes** in all products are not compliant with the EMD and are above 500 kW (e.g., France, Finland, Italy or Slovenia). These minimum bid sizes exclude the participation of DSR.
- Complex pre-qualification and metering requirements

In addition to the previous points, there are some practical examples in EU member states as well as the UK and US, that are worthwhile highlighting because of the barriers they still impose on DSR:

- Germany: The interruptible loads scheme AbLaV in Germany allows 1 500 MW of industrial assets to provide their flexibility to the TSOs. However, there are still technology specific barriers for the steel and cement industry that cannot participate due to technical criteria. In addition, investment security is lacking because of the time limitation of the regulation until 1 July 2022.
- France: The interruptible loads scheme in France allows the steel industry to participate. But very few industries can participate and aggregation is not allowed. In 2020, only 1.5 GW of interruptible loads were procured. Specific tenders for DSF are the most profitable value stream accessible for DR (Appel d'offres Effacement).
- Italy: The interruptible loads scheme in Italy allows the steel and cement industry to participate with minimum offers of 1 MW. Hurdle: The tender volumes are relatively low. DSF assets can also access the mFRR and RR markets through the UVAM pilot. Although this is dominated by large assets, ~800 MW of DSF participated in 2020, mainly from heavy industrial customers (e.g., steel, paper, agriculture).
- US: The US allows for technology-neutral capacity markets. Many best practices for capacity markets with a level playing field for demand response can be found in the US markets. Demand response plays a crucial role in meeting capacity targets in an efficient way there, e.g., the PJM market.

8. What do you consider to be the best practices for the facilitation of demand side response?

Beyond the implementation at national level of EU rules set in the Electricity Market Design, smartEn proposes a suite of tools and regulatory changes to fully unlock the potential of DSR.

- National binding targets to give political visibility to the potential of DSR to increase system and carbon efficiency. A DSF target to reduce 10% of peak demand in 2030 would facilitate the activation of DR, as showed in the US.
- **System operators should procure flexibility services** where these are cheaper than grid expansion. While procurement of flexibility is already a reality at transmission level, there are still significant limitations at distribution level. The UK has many years of experience with flexibility markets at DSO level. In 2020 DSO procurement saw the largest increase in capacity (~2 GW) due to larger tenders, most of which is being monetised by batteries and electric vehicles. Efforts should be made to harmonise market products across Europe to facilitate faster uptake of DSR.
- **Dedicated products for DSR** as they are already implemented in some countries like Germany (interruptibility scheme).
- **Reliability options** for DSR provision. According to this concept, reliability options form a contract between capacity providers (e. g. aggregators) and (ultimately) customers. It is a hedging product that takes into account the participants' requirements and needs, and makes the best use of their flexibility.
- The development of a **network code for DSF**, that fully reflects the particular opportunities that DSF can provide, in particular at local level, where current incentive structures and regulation are not enough for the development of DSF. The network code should include among others:

    - A framework for a market-based approach to all flexibility purchasing.
    - Clear definition of roles and responsibilities, ensuring that all market participants to be able to participate on an equal footing.
    - A revision of incentive structures for system operators and the remuneration of flexibility services.
    - Increased transparency in the needs of the grid, and interactions between market participants.
    - Allowing and fostering independent aggregation, creating a truly neutral playing field and increasing market efficiency in all member states.

- **Network tariff design for effective price signals**. A cost reflective tariff design that provides to the consumer the right dynamic time varying signals on the state of the grid, including congestion and CO2 emissions at any given time.
- **Accurate DSF modelling** in scenarios setting the basis for integrated planning and investment choices. Modelling scenarios need to include a wide range of demand-side technologies, and should take into account all the services that they can provide, and not only peak-shaving and load shifting. Modelling scenarios should consider system wide benefits of DSF use instead of traditional generation.
- **Sub-metering as additional enablers of distributed flexibility.** Smart meters are key assets to unlock implicit demand-side flexibility, but not essential devices for an incentives-based activation of this potential. Sub-meters and single controllers can enable end-users to participate to markets, notably with the support of aggregators.

More Intraday Implicit Auctions

9. Do you see benefits in increasing the number of intraday auctions?

10. If so, what would be an adequate number of auctions per day?

11. Would you still see a role for cross-zonal intraday continuous trading if such adequate number of Intraday auctions would be implemented?

Combining day-Ahead and Intraday Auctions

12. What potential benefits or drawbacks do you foresee in combining day-ahead and intraday auctions?

13. Would you recommend any alternative solution which could achieve similar objectives?

Evolution of Markets for Forward Transmission capacity

14. How could markets for forward transmission capacity be improved to support the energy transition?

15. Do you see value in developing new durations of long- term transmission capacity products mirroring products for forward electricity trading?

16. Do you see other means to improve the forward markets and hedging possibilities besides long-term transmission rights?

Co-optimisation of energy and balancing capacity

17. Which potential benefits or drawbacks do you foresee with the co-optimisation of energy and balancing capacity?

18. Would you recommend any other solution which could achieve similar objectives?

19. Do you think that the implementation of co-optimisa- tion or other market features could increase market complexity to a level which may be detrimental for the entrance of new players?

Congestion management and balancing

20. How can TSO procurement of balancing services evolve to be a better fit for the new power system of 2030?

Further improvements could be made in the current product design and procurement of balancing services to provide an even playing field for all market players and remove unnecessary barriers to new technology solutions:

- **Identify clear roles for the different balancing products**: FCR has become the "go-to solution" for system problems. While it ought to be the first response to frequency deviations, it should not be used as an excuse to avoid wider systemic issues like Deterministic Frequency Deviations (DFDs). smartEn suggests reforming this market by reducing the schedule times to adapt to the reality of more volatile demand and generation, making any mismatch between them smaller.
  Given that DFDs are predictable due to their nature, smartEn encourages European TSOs to assess how to use appropriate market measures in order to match demand and generation ahead of real-time. This would be a step towards solving the issue, exploring establishing rules of engagement for a pre-emptive activation of said reserves, particularly mFRR and RR. This could also be combined with an increased procurement of FCR or the creation of a new fast FCR product.
- **System needs transparency**: increase transparency regarding the grid's needs, including congestion information at the local level.
- **Focus on market-based solutions through a clean product design**
  Efficient and fast-reacting solutions should be encouraged to participate in the market through a technology-neutral process. Products should be appropriately designed to reflect the needs of the system and should not include the ramps in the shape of the existing energy products, moving away from trapezoidal product shapes. Instead, solutions with fast ramping periods or no ramping periods at all should be rewarded since they provide a cheaper and faster solution.
  Procurement of re-dispatch (system actions) should be integrated into the market procurement of balancing services. This should be done via dedicated and transparent technology neutral market mechanisms (instead of via bilateral agreements or via post day-ahead clearing arrangements that discriminate between providers based on technology).
- **Price limits**: Remove any upper price limits on the balancing energy market (e.g, in Germany). These contradict an energy-only market and should be abolished.
- To make better use of FCR throughout Europe, **asset backing across TSO control areas** should also be possible in Germany.

21. Do you have concrete examples of best practices in the procurement of balancing services?

Further evolutions complementing balancing energy markets

22. For system with limited congestions and reactive balancing approaches, would you foresee any benefits to implementing real-time markets managed by the relevant TSO?

N/A

23. Are there any other Balancing Markets enhancement which you would recommend?

Even with the implementation of the Clean Energy Package, we still see numerous issues in balancing markets that are limiting the participation of DSF:

- Market procurement: In some EU countries, procurement of balancing services is still done through bilateral contracts or mandatory provision. This should be done via transparent, technology neutral procurement that integrates congestion management into existing balancing products or the creation of new specific marked-procured products.
- Allow pooling of resources: of assets is key to empower consumers and to allow BSPs to always have the right answer to the system needs.
- Technology neutrality: Make sure that technology neutrality is respected not only through avoiding explicit limitations to DSF but also through implicit product design and requirements suited for traditional generation.
- Allow multiple simultaneous bids: avoid wasting any resource, allowing flexibility providers like aggregators to always have the right answer and to build a business case based on diversification.
- Baselining and measurement: As of today, not all markets have baseline methodologies, and instead use a schedule that the participant has to submit, and on which basis he will be penalized or rewarded. A single baseline is not necessary, but at least a guideline that includes the baseline calculation, transposition methods between different baselines, standards for exchanging baselines and a certification process.
- Undistorted balancing prices: In order to protect the optimal functioning of the market and secure transparency, balancing prices should not be distorted by other system management measures, namely congestion actions, which lead to modifications of the merit order.

Product simplification

24. Would you support the simplification of products traded in the DA and ID auctions to speed up the implementation of ongoing and future market evolutions?

25. If yes, which DA and ID market evolution would you consider to be a priority and which specific products could be discarded?

Alternative pricing methods

26. Which potential benefits or drawbacks do you see with the alternative pricing methodologies described above?

27. Would you recommend any other solution to improve the performance of DA and ID coupling algorithms?

Adapt the optimisation procedure

28. Which potential benefits or drawbacks do you foresee by allowing more time for the algorithm optimisation?
29. Would you be in favour of keeping an hourly auction in day-ahead followed by 15 min intraday auctions?
30. Would you recommend any other solution to adapt market coupling procedures?

Zonal

31. Do you think the zonal market model including the planned evolutions of the Clean Energy Package is suit- able for the 2030 power system?

32. What is the most important feature of the current zonal market design that must be adapted to make it future proof?

PST & HVDC in the market coupling

33. Which potential benefits or drawbacks do you foresee with introduction of the PST and cross-border/internal HVDC in the allocation phase of transmission capacities alongside the market coupling?

N/A

34. Which potential benefits or drawbacks do you foresee with the introduction of several Flow-Based domains in the allocation phase of transmission capacities?

N/A

Dispatch Hubs

35. Do you see the Dispatch hubs model as a promising option to be further analysed in the future? If so, which variant: Redispatch potential bids or market bids appears the most promising?

N/A

36. Do you foresee any challenge in the implementation/operation of the model?

N/A

Location Based Balancing

37. Do you consider more locational information in the balancing timeframe to be a solution worth requiring further analysis?

Yes, as generation and consumption increase especially at DSO level, we need more locational information to solve congestion management. Additionally, locational information is also becoming more relevant at TSO level. Therefore, more locational information in the balancing timeframe is definitely worth further analysis.

38. Would you recommend any alternative solution to solve intra-zonal congestion in the balancing timeframe?

Nodal based models

39. Do you think experience with nodal models can be useful in Europe, and how?

40. What other advantages or disadvantages do you foresee with nodal models in a European context than those mentioned here?

41. How could the increasing participation of distributed energy resources to the balancing market be handled in nodal pricing models?

Coexistence of different market models

42. Under which conditions do you think a nodal market could be a relevant solution for some countries?

43. Do you foresee other challenges or solutions than those mentioned here with respect to the interaction between zonal and nodal solutions?

Redispatching and local flexibility markets

44. How can distortions and inc/dec gaming in market-based redispatch be addressed/mitigated?

While inc/dec gaming in market-based redispatch should be a genuine concern that needs to be addressed, this concern shouldn't be used as a blanket argument against a market-based approach. In particular since gaming concerns are not unique and particular to congestion management nor to the electricity system, and there have been ways to overcome gaming risks.

There are several possibilities and mitigating measures, including some already mentioned in the NODES paper quoted in the report (*Market-Based Redispatch in the Distribution Grid – Why it works!* (2020)):

- **Independent market monitoring**: National Regulatory Agencies (NRAs) are the responsible parties to ensure a distortion-free functioning of electricity markets. As such they can introduce mechanisms to spot cases of strategic bidding and impose sanctions.
- **Further regulation**: Some countries have undergone regulatory exercises for congestion management that consider the possibility of strategic bidding. One such case is Norway, where the TSO is entitled to ignore the price offered, if there is indication of strategic bidding or if the price is not socio-economically beneficial.
- **Algorithms, artificial intelligence and randomised activation:** Algorithms and AIs can be developed to learn inc-dec gaming patterns and penalise those bids or remove them completely

Other suggested mitigating measures in literature:

- Schuster et. al suggest at least three possibilities to address and mitigate inc/dec gaming: Actual value-based congestion management, regulated remuneration of flexibility and the proof of energy market transactions (https://www.e-bridge.com/wp-content/uploads/2019/02/Artikel-et_Ans%C3%A4tze-zur-Verhinderung-von-Gaming-bei-planwertbasiertem-Engpassmanagement.pdf).

- Another option is market monitoring as shown e.g., in the Enera project (https://projekt-enera.de/blog/market-monitoring-zur-identifikation-von-strategischem-verhalten-in-flexibilitaetsmaerkten-inc-dec-gaming/).
- Hybrid models to allow market-based congestion management for the demand side (while keeping the regulated approach for generation) such as presented from three German DSOs (follow-up project of https://www.e-bridge.de/2020/02/masterplan-flexibilitaet-in-brandenburgs-verteilnetzen/, not published yet).
- Capacity-based payments such as the German Energy Ministry assigned NEON to examine (no information published yet).

45. What type of alternatives (e. g.capacity-based payments) exist to efficiently make use of distributed flexibility sources?

There are different alternatives to efficiently make use of distributed flexibility sources, such as:

- Dedicated products for DSF: Some examples have been implemented in Germany or in France. In Germany a dedicated product is used to ramp up industrial demand response through an interruptibility scheme ("Abschaltbare Lasten") that consist of 1500 MW and allows the participation of assets from 5 MW size, or the aggregation of smaller assets to reach 5MW. In France the Appel d'offres Effacement is a dedicated product for DSF.
- Pure flexibility market such as NODES (https://nodesmarket.com/), GOPACS (https://en.gopacs.eu/) or Enera (https://projekt-enera.de/).
- Hybrid models to allow market-based congestion management for the demand side (while keeping the regulated approach for generation) such as presented from three German DSOs (follow-up project of https://www.e-bridge.de/2020/02/masterplan-flexibilitaet-in-brandenburgs-verteilnetzen/, not published yet).
- Capacity-based payments such as the German Energy Ministry actually assigned NEON to examine (no information published yet). We consider this the most promising way to escape the inc/dec issue.
- Combinations of capacity-based availability and energy-based utilisation payments are offered for different DSF products in UK distribution network flexibility services (eg https://smartgrid.ukpowernetworks.co.uk/wp-content/uploads/2019/11/UK-Power-Networks-Product-Definition.pdf)

46. What recommendations do you have for the development of local flexibility markets based on existing initiatives?

There are a number of pilot projects that show the advantages of local flexibility markets:

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- NODES
- GOPACS
- Enera
- IREMEL
- Piclo Flex

A full description of these markets and how they facilitate the use of DSF can be found in the smartEn position paper “Design Principles for (Local) Markets for Electricity System Services” (https://smarten.eu/design-principles-for-local-markets-for-electricity-system-services/). We strongly recommend to leave the pilot phase and implement local flexibility markets to address local flexibility needs and rapidly shift towards harmonised product designs across EU.

47. Should EU legislation attempt to define some funda- mental common principles (e. g. degree of integration with existing wholesale markets, products standardisa- tion, etc.)?

Yes. EU legislation should also seek to define harmonised products to help unlock local flexibility more quickly.

Main market design options to ensure resource adequacy

48. Do you agree that all three models described above could be suitable for European countries in 2030?

We consider two efficient models:

- Full capacity market as in many US states, UK, and France. The prerequisite however, is a technology-inclusive market design so that demand response can participate on an equal footing.
- Energy-only market with clear price signals as the lead market, complemented with a backup. As we have learned from the Texas brown-out 2021, there should be a backup of strategic reserves and capacity mechanisms as insurance for emergencies. These should include especially demand response, as industry consumption reduction is a very efficient medium for these rare but critical situations.

49. Is there any additional market model which would be suitable for European countries in 2030?

Capacity Mechanisms with flexibility requirements

50. Do you see capacity mechanisms with flexibility requirements as a promising option for further analysis?

Yes we do, but they must be designed in a technology-inclusive way, ensuring that new technologies such as demand response and storage can compete with generation on a level playing field. In some cases, this might require specific percentages of capacity being provided by flexibility resources. The further analysis should also look into implicity barriers in the product design, for example derating factors that penalize storage or DR, and long term contracts for generation and only month-long contracts for DR.

51. What are in your view the main potential advantages and drawbacks of capacity mechanisms with flexibility requirements?

The main potential advantages of capacity mechanisms with flexibility requirements are a backup in case the energy-only market fails. Capacity mechanisms provided by flexibility services can in many cases provide a cheaper, more efficient and less carbon-intensive solution to resource adequacy. The main drawback occurs when a bad design considers only fossil generation assets or has implicit barriers to flexibility built into the product design. By contrast, a technology-neutral design ensures that new technologies such as demand response and storage can compete with generation on a level playing field. Strong emissions limits should be considered in any capacity mechanism design to promote the necessary shift towards zero-emissions resources.

Capacity Subscriptions

52. Do you consider the capacity subscriptions model as a promising option for further analysis?

53. In your view, what are the main potential advantages and drawbacks of the capacity subscriptions model?

Scarcity Pricing

54. Which potential benefits or drawbacks do you foresee with the implementation of scarcity pricing in your market?

55. Do you have any specific suggestions on how scarcity pricing could be implemented?

RES and Capacity Mechanisms

56. What type of RES supports is more fit for purpose for the 2030 power system?
57. What other market design elements can facilitate investments in RES to achieve EU climate objectives?
58. What are the best practices for the design of RES tenders?
59. How should capacity mechanisms consider the participation of RES?

Ancillary Services

60. Do you see potential for the development of new frequency ancillary services?

In different EU member states, there are already mFRR, aFRR, FCR and RR products. Instead of further products, we are in favor of an EU-wide harmonisation of these existing products.

There is no need to develop new frequency ancillary services in the short term, but it is necessary to use them for what they were designed. For example, as stated previously, FCR is being used as the "go-to solution" for system problems. While it ought to be the first response to frequency deviations, it should not be used as an excuse to avoid wider systemic issues like Deterministic Frequency Deviations (DFDs) and other structural issues that the system operators should address either through updated infrastructure if necessary, or other products.

Looking ahead, reduction in physical inertia due to the retirement of spinning plant will become an increasing challenge for system stability and the integration of RES generation, particularly in parts of the network (eg islands and grid edge) that are more sensitive to frequency deviations than continental Europe. In this context, new frequency ancillary services such as Fast Frequency Response should not be overlooked in the evolution of the market design.

61. Which non-frequency ancillary services are more suited for market-based procurement?

A study for the German Energy Ministry comes to the conclusion that a market for reactive power as well as a market for black start capability are suited for market-based procurement, please see https://www.bmwi.de/Redaktion/DE/Downloads/G/gesetzentwurf-aenderung-energiewirtschaftsgesetz-zur-marktgestuetzten-beschaffung-von-systemdienstleistungen.pdf?__blob=publicationFile&v=4.

In addition, markets for re-dispatch, congestion management and local flexibility services should also be procured on a market basis.

62. Do you have suggestions on how to best ensure that market participants provide the necessary system inertia to the system?

63. Would you recommend any other solution for ancillary services in 2030?

To promote increased competition and participation from all resources, including DSF, and to enable more efficient optimisation in the provision of services, we recommend:

- Further harmonise products across Europe
- Reduce settlement periods from 4h to 15 minutes

- Align market timelines with wholesale markets

64. Is there any other key market design are not addressed in this paper which deserves particular attention to enable the achievement of European energy and climate goals for 2030?

About smartEn - Smart Energy Europe

smartEn is the European business association integrating the decentralized solutions of the clean energy transition. We create opportunities for every company, building and car to support an increasingly renewable energy system. Our membership consists of the following companies:

The positions expressed in this document represent the views of smartEn as an association, but not necessarily the opinion of each specific smartEn member.
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