



BestRES

Best practices and implementation
of innovative business models
for renewable energy aggregators

The impact of the *Clean Energy for All Europeans package* (CE4AE package) on legal and regulatory problems for aggregators, encountered in the BestRES project

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Policy recommendations

1.

Aggregators are important market players when it comes to the market participation of consumers and energy communities and to facilitate the flexibility of the market!

→ A robust legal framework that ensures fair market access for aggregators is crucial

The Council's attempt to delete provisions that refer to aggregation **counteracts this conception**, e.g. Art. 6 para. 3 IEM-Regulation! This provision concerns the development of products and trading opportunities that suit market participants' demand and needs and ensure that all market participants are able to access the market individually or through aggregation.

2.

The market participation of aggregators has to be encouraged!

→ It is very important that Member States encourage the participation of aggregators in all markets

The Parliament's position in the introductory part and point a of Art. 17 para. 3 IEM-Directive **is favourable!** (Member States shall ensure that their regulatory framework encourages the participation of aggregators in all markets and the right for each aggregator to enter without consent from other market participants without a restriction to retail or electricity markets).

3.

To create a level playing-field for aggregators in respect of market access and participation, it is crucial that there are no unnecessary or hampering financial charges; at the same time financial responsibilities have to be well defined!

→ Provisions that concern the payment of compensations or financial responsibilities for aggregators have to be well balanced

It is crucial **to find a balance** between the **Commission's proposal** in Art. 17 para. 3 point d and para. 4 IEM-Directive (Principle: aggregators shall not be

required to pay compensation to suppliers or generators) **and the Council's and the Parliament's position** in Art. 17 para. 3 point da/db IEM-Directive (market participants engaged in aggregation shall be financially responsible for the imbalances they cause)!

4.

It is very important that aggregators are recognised as equal market players, especially in respect of market access!

→ Access to balancing market should be guaranteed to all market participants

The Commission's and the Parliament's approach in Art. 5 para. 1 IEM-Regulation to state a general guarantee for all market participants to have access to the balancing market **supports** this idea!

5.

It is essential that customers can act through aggregators in the fields of generation, storage, consumption and selling in a non-discriminatory manner!

→ Non-discriminatory market access for final customers through aggregators is a necessity

The Parliament's proposal in Art. 15 para. 1 IEM-Directive **is required** for this purpose! (Final customers are entitled to generate, store, consume and sell self-generated electricity through aggregators without being subject to discriminatory or disproportionately burdensome procedures and charges).

6.

It is crucial that customers who make use of aggregators are not disadvantaged in any way!

→ Final customers must not be subject to undue payments, penalties or restrictions

The Parliament's position in Art. 17 para. 3 point dc IEM-Directive **has to be supported!** (Final customers who have a contract with independent aggregators shall not face undue payments, penalties or other undue contractual restriction from their suppliers).

7.

In order to connect local energy communities and the aggregators' services it is important that sharing of electricity from generation assets within the community is possible, based on market principles!

→ Local energy communities have to be entitled to share electricity from generation assets within the community based on market principles, using existing and future ICT services

The Parliament's proposal in Art. 16 a IEM-Directive **serves this purpose!** (Local energy communities are entitled to share electricity from generation assets within the community between its members or shareholders based on market principles, including applying existing or future ICT technologies such as virtual net metering schemes and those based on distributed ledger technologies, as well as through power purchase agreements or peer-to-peer trade arrangements for example).

8.

Easy access to and exchange of data is very important; at the same time a high level of protection of customers' data is needed!

→ Protection of data has to be ensured to prevent a discouragement of customers

The Parliament's proposal in Art. 17 para. 3 point c IEM-Directive **is necessary!** (The Member States' framework contains non-discriminatory and transparent rules and procedures for data exchange between market participants that ensure easy access to data on equal and non-discriminatory terms while fully protecting commercial data and customers' personal data, including minimum information requirements for the aggregator, as well as minimum criteria for the protection of commercially sensitive data for all parties concerned).

9.

It is essential for the work of aggregators that they have access to the data of the customers!

→ Aggregators shall be among the parties that are able to access the data of final customers

The Council's position in Art. 23 para. 1 IEM-Directive that it is not mandatory that the eligible parties which may have access to data of the final customer shall include aggregators **is hindering!**

10.

It would be positive to highlight that aggregation is not only an important aspect in respect of demand response but also in respect of generation!

→ The important role of aggregators regarding generation should be pointed out

A possible approach would be **a change of the title of Art. 17 IEM-Directive** from “demand response through aggregation” to “**market access through aggregation**”!

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A. Introduction

I. The BestRES project and its Business Models

The BestRES project aims to develop Business Models for integration of renewable energy sources by aggregating distributed generation such as wind, PV, biogas, biomass, hydro, Combined Heat and Power and combining this with demand side management and energy storage. Aggregators are likely to play an important role in the sectors of demand response, generation and balancing services. Not only as a third party but also as balancing responsible party (= BRP), e.g. to help the balancing responsibility approach to deal with renewable energy; for instance higher forecasting quality when aggregating distributed renewables through portfolio effects. The main benefits from aggregation for aggregators are portfolio optimization and the increased market access with decentralized units. It can also improve the relationship between prosumers and aggregators. For providers of aggregation services, the potential benefits include increased revenues and a reduced energy bill. With respect to users of aggregation services, aggregators commonly perceive lower prices on control reserves and wholesale markets as a key advantage since more units are participating. Furthermore, aggregation has the potential to lower balancing costs and decrease the energy costs for prosumers. Since aggregators deliver primary, secondary and tertiary reserves in the United Kingdom, Germany, France, Belgium and Austria, provision of frequency control is already relatively common.

Hence 13 improved Business Models that are concerned with aggregation were developed in the BestRES project to be analysed, examined, and eventually implemented in the energy market. However, these Business Models encounter various barriers on their way, be it of economic, technical or legal nature (For a more detailed analysis of the barriers see Deliverable 4.1 in the BestRES project).

The following paper is concerned with the legal and regulatory barriers, on national and on EU level, that were already identified in earlier stages of the BestRES project. In this context, especially the ongoing CE4AE-Package has to be focused and analysed, because the new provisions that can be found in this package are likely to reduce or even eliminate said barriers. The main legal and regulatory barriers that were identified in the 13 improved Business Models, and thus are at the centre of this paper are market access and participation, data/privacy protection as well as data access, and self-consumption and local settlement of generation.

In this context, it is important to note that, while the final versions of the IEM-Regulation and IEM-Directive are still to be discussed, the Trilogue negotiations for the RED II position are already finished. Thus, when it comes to the IEM-Regulation or Directive, the three positions from the Commission, the Council and the Parliament have to be examined. In respect of the RED II only the final version will be focused.

II. Current EU legislation (Reg. (EC) No 714/2009 and Dir. 2009/72/EC)

Before the upcoming legislation will be focused, in order to mark the differences, a short overview on the current EU legislation shall be provided. In comparison with the actual EU legislation, the CE4AE-Package is likely to set more detailed obligations for Member States, and expand guarantees that are helpful with respect of the legal and regulatory barriers impeding the implementation of the improved Business Models.

Effective and open non-discriminatory market access for all market players, and removing barriers that could prevent access for new market entrants, and of electricity from renewable energy sources are already important topics in the current EU legislation. In particular, this concerns the participation of final customers and final customers' aggregators in reserve and balancing markets. However the provisions are not particularly related to aggregators, self-consumers or local market participants as the upcoming CE4AE-Package is. Thus the discussed provisions regarding the improved Business Models are likely to facilitate the participation of these actors to a whole new level. In the area of protection and access to data, there are also relevant current provisions regarding the publishing of relevant data, and the access to consumption data. But again, they are not related to aggregators and do not refer to the exchange of data as much as the CE4AE-Package does. Particularly there is nothing as eligible parties that include aggregators or DSOs.

III. Aggregators/Aggregation in the CE4AE-Package

Analysing the CE4AE-Package shows that many provisions (IEM-Regulation = IEM-Reg., the IEM-Directive = IEM-Dir., and the Renewable Energy-Directive = RED II) mention aggregators or aggregation in different contexts. However, regarding the improved Business Models it has to be pointed out that on the one hand not all these provisions are relevant, and on the other hand there are also several provisions not mentioning aggregators which are relevant as well, as they address important areas related to the Business Models. Knowing this, makes it necessary to work in a bilateral way:

1. Identifying all the provisions that mention aggregators or aggregation, and considering the different positions by the Commission, the Council and the European Parliament to ensure no aggregator-related sector of the CE4AE-Package will be missed as this can be relevant for aggregators in general even if it does not relate to a specific Business Model from the BestRES project.
2. Identifying all the provisions that are relevant for the improved Business Models in particular, may they or may they not mention aggregators or aggregation explicitly, as this is the main task to solve the identified legal and regulatory barriers concerned in the BestRES project.

To meet both requirements, the following paper firstly offers a tabular overview of all provisions in the CE4AE-Package - using the Commission's proposal as starting point - which mention aggregators or aggregation. And it will point out if one position (Council or Parliament) varies i.e. does not mention aggregators/aggregation while the Commission does, or if a position mentions aggregators/aggregation while the Commission does not. If a variation is detected it is marked in one of three colours, depending on whether the given variation is - from the aggregators' point of view - favourable (= green), not favourable (= red) or does not matter/is undecided (= blue).

Subsequent to this, there will be an analysis of the relevant topics mentioned above. Again, each time the three different Trilogue positions are concerned and it is identified which position is favourable and which is not, from the view of aggregators. As the Trilogue negotiations for the RED II positions are already finished, only one final position has to be mentioned.

Table: Relevant provisions regarding aggregation in the CE4AE-Package.

RED II	IEM-Reg.	IEM-Dir.
Art. 21: renewable self-consumers Member States shall ensure that renewable self-consumers, <u>individually or through aggregators</u> : (...)	Art. 1 b): This Regulation aims at: (...) facilitate aggregation (...)	Art. 2: Definitions that mention aggregators or aggregation No.6: active customer Council: not mentioning aggregation in active customer definition but in Nr.6 lit. (b): market participant No.7: local energy community No.12: contract termination fee Council: mentioning aggregation Nr.13: switching related fee No.14: Aggregator No.15: independent aggregator No.16: demand response Council: mentioning aggregation Nr.45: electricity undertaking
	Art. 3 para. 1 lit. d): market participation of consumers enabled by aggregation	
	Art. 5: Balancing markets access to the balancing market, <u>individually or through aggregation</u>	
	Art. 6 para. 3: Day ahead/intraday markets Development of products and trading opportunities that ensure access the market, <u>individually or through aggregation</u> Council: provision is missing	
Art. 22: renewable energy communities (e) renewable energy communities that supply energy, <u>provide aggregation</u> (...) (i) renewable energy communities are entitled to access all suitable energy markets both directly or through aggregation in a non-discriminatory manner;	Art. 16: network charges Parliament: Grid tariffs shall not discriminate against aggregation	Art. 12: Right to switch supplier Council: related to every market participant <u>engaged in aggregation</u>
	Art. 55 para. 1 lit. n): network codes In the area of demand response, including aggregation Council: provision is missing	Art. 13: Contract with an aggregator Art. 14: Comparison tool Parliament: mentioning <u>independent aggregators</u> Art. 15: Active customer; Art. 16: Local energy communities; Art. 17: Demand response; “through aggregators” Council: Art. 17: Demand resp. <u>through aggregation</u> Art. 19: Smart metering; Art. 23: Data management; Art. 27: Universal service; Council: not mentioning aggregators in Art. 19 Council: not mentioning aggregators in Art. 23 Parliament: mentioning aggregators in Art. 25: Single points of contract and in Art. 26: Right to out-of-court dispute settlement Art. 31, 32, 40: Tasks of DSOs and TSOs

B. Relevant provisions for the Business Models

I. Market access and participation

1. Market access and participation in general

The Commission's and the Parliament's position to Art. 5 para. 1 IEM-Reg. guarantees access to the balancing market to all market participants, be it individually or through aggregation. The Parliament proposes the wording: "market participants, including those providing electricity generated from variable renewable sources and demand side response and storage services" and speaks of "full access to the balancing market". The Council does not make such a prominent statement, but especially mentions the prequalification process in para. 2, which neither the Commission nor the Parliament does (However all of the positions mention this process in para. 8).. Art. 6 para. 3 IEM-Reg. ensures that all market operators are able to develop products and trading opportunities that suit market participants' demand and needs and ensure that all market participants are able to access the market individually or through aggregation. As already seen above this provision is deleted in the Council's proposal.

In Art. 15 IEM-Dir. the Commission and the Parliament foresee that final customers are entitled to generate, store, consume and sell self-generated electricity in all organised energy markets, individually or through aggregators, without being subject to disproportionately burdensome procedures and charges. The Parliament adds in Art. 17 para. 3 lit. dc) that final customers who have a contract with independent aggregators shall not face undue payments, penalties or other undue contractual restriction from their suppliers. Further, national regulatory authorities have to encourage final customers, including those offering demand response through aggregators, to participate alongside generators in a non-discriminatory manner in all organised markets (Parliament: and capacity mechanisms) (Art. 17 para. 1 IEM-Dir.). A framework must be engaged that encourages the participation of aggregators in the retail market (Not restricted to retail markets in the Parliament's proposal), and that contains the right for each aggregator to enter the market without consent from other market participants (Art. 17 para. 3 lit. a) IEM-Dir.). Moreover Member States shall ensure access to and foster participation of demand response, including through independent aggregators, in all organised markets (Art. 17 para. 5 IEM-Dir.).

While the Parliament uses a similar wording as the Commission (changes are mentioned in the brackets above), the Council proposes some important changes. Regarding final customers it foresees a financial responsibility for the imbalances they cause in the electricity system, allows that Member States may have different governing provisions in their national legislation, provided that all rights and obligations as stipulated in this article are applied to all active customers, and forbids them to grant new rights under existing schemes which are not accounting separately for the electricity fed into the grid and the electricity consumed from

the grid until 2025 (Art. 15 para. 1b), 1c) IEM-Dir.). Moreover national regulatory authorities are not obliged to encourage final customers, but final customers, including those offering demand response through aggregation, are allowed to participate in all electricity markets in a non-discriminatory manner (Art. 17 para. 1 IEM-Dir.). The Council and the Parliament as well, foresee market participants engaged in aggregation to be financially responsible for the imbalances they cause in the electricity system (Art. 17 para. 3 lit. da)/db). The Council provides that Member States may require undertakings, including independent aggregators to pay compensation to other market participants or their balancing responsible party if they directly induce imbalances to these market participants including situations where a perimeter correction is introduced without creating a barrier for market entry of aggregators or a barrier for flexibility. In such cases the compensation payment shall be strictly limited to cover the resulting costs. It is important to highlight that although, on first sight, it may seem favourable to not have a financial responsibility for aggregators, in respect of the recognition as equal market players, and especially regarding aggregators as balancing responsible party, a financial responsibility for imbalances is likely to serve this purpose.

Thus, comparing the three positions, the Council's position does not extend guarantees of market access and participation as much as the Commission and the Parliament. Especially the Parliament's proposal lowers the market entry barriers and highlights non-discriminatory market access and participation. The Council lets Member States decide more on their own, making these topics a more national matter. In respect of a financial responsibility the Council and the Parliament foresee the principle that aggregators are responsible (with exceptions), while the Commission provides the opposite.

2. Balancing services

a) The Guidelines

Especially the area of balancing services is affected by the Commission's guidelines and network codes. Those legislative acts provide rules and oblige the TSOs to develop terms and conditions or methodologies which have then to be implemented on national level. These processes are in a progress of development at the moment, and are likely to offer changes, both on national and EU level, in the medium and long term. It is important to highlight that the harmonization mainly targets balancing energy. While balancing capacity procurement is likely to stay a more national topic, in comparison, balancing energy is expecting a rather extensive harmonisation on EU level.

The most important guidelines in the context of this paper are the Guideline on Electricity Balancing (GL EB) and the Guideline on Electricity Transmission System Operation (SO GL). While the Guideline on Electricity Transmission System Operation is a more technical guideline regarding the prequalification processes that are a requirement to take part on the balancing services market, the Electricity Balancing Guideline is aiming to create a balancing market where TSOs can share the resources, and also to allow new players such as demand response and renewables to take part in this market.

It lays down a detailed Guideline on Electricity Balancing including the establishment of common principles for the procurement and the settlement of frequency containment reserves, frequency restoration reserves and replacement reserves and a common methodology for the activation of frequency restoration reserves and replacement reserves, Art. 1 of the Guideline. Some of the main topics are:

- Harmonization of certain features of imbalance calculation and pricing.
- European platform for imbalance netting.
- Common platform and merit order for replacement reserve and frequency restoration reserve (mFRR & aFRR) in the sector of balancing energy.
- Standardization for balancing energy products.
- *Terms and conditions related to balancing*

Thus there is a multiple impact for aggregation. In general, common merit order lists (instead of pro rata) are positive for aggregators because demand side assets and renewables have usually higher activation costs. Especially the harmonisation helps aggregators to access a rather wide market. However, the remaining barrier is that a lot of things are not harmonized by these Guidelines. For instance, how balancing capacity is procured and the details of prequalification requirements may remain national topics. Member States are not obliged to harmonize balancing capacity procurement on EU level, and may keep their national regulation. Therefore it is likely that the TSO will create a common balancing energy market without creating a level playing field, as in some aspects there will still be a significant difference between the Member States: While balancing energy will be harmonized, balancing capacity and prequalification processes are likely to differ from Member State to Member State.

b) The CE4AE-Package

However, there are not many provisions in the CE4AE-Package that are related to those questions in detail. Art. 5 IEM-Reg. concerns balancing markets, as mentioned above. In particular the Council's position mentions the prequalification processes, when it proposes in para. 2 that:

“balancing markets, including prequalification processes, shall be organised in such a way as to:

- (a) ensure effective non-discrimination between market participants taking account of the different technical needs of the power system, a transparent and technologically neutral definition of services and their transparent, market based procurement,
- (b) ensure access to all prequalified market participants, be it individual or through aggregation;
- (c) respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.”

This is a positive aspect, as a provision on EU level concerning the prequalification processes (besides Art. 5 para. 8 which also mentions the prequalification, in all

of the three proposals) fosters the harmonization in this area. In addition it would be favourable to have a European legislation that is harmonizing the aforementioned aspects, especially balancing capacity procurement and prequalification requirements.

Regarding (non-frequency) ancillary services in general the Commission and the Parliament provide that independent aggregators (the Council expands this provision to all market participants engaging in demand response aggregation) have to be treated by the DSO and TSO in a non-discriminatory manner (Art. 17 para. 2 IEM-Dir.). The procurement of ancillary services, especially balancing services, shall be transparent, non-discriminatory, market based. Effective market participation of all market participants has to be ensured unless justified by a cost-benefit analysis (Art. 31 para. 5, Art. 40 para. 1 lit (i), para. 4 IEM-Dir.). The Council does not provide that DSOs are obliged to ensure effective participation of all market participants. The non-frequency ancillary services shall be procured according to transparent, non-discriminatory and market-based procedures unless the regulatory authority has assessed that the market-based provision of non-frequency ancillary services is economically not efficient, and has granted a derogation. The Council's position to Art. 17 para. 2 is favourable as it is not restricted to independent aggregators.

Although the CE4AE-package does not especially address many of the relevant aspects regarding balancing services in detail, it has an impact on pricing, competition and market entry in general as it benefits and grants rights for aggregators (in general, or in person of a final/active customer or a local energy community) as seen above. After all, the general provisions are likely to affect the national implementation of the aforementioned Network Codes and Guidelines, as the CE4AE-Package will be the "lex posterior" (the younger law) and therefore override the older law.

II. Self-consumption and local settlement of generation

Regarding a framework for local settlement of generation, energy communities and self-consumption several provisions are to consider. Art. 21 and 22 RED II consider the renewable self-consumer and the renewable energy community. Art. 2 No. 7 and Art. 16 IEM-Dir. define the local energy community, and Art. 2 No. 6 and Art. 15 IEM-Dir. are concerned with the active and final customer.

1. Renewable self-consumers

Renewable self-consumers are defined in Art. 2 lit. aa) RED II and further concerned and benefited in Art. 21 RED II. The definition of renewable self-consumer is:

“renewable self-consumer means a final customer operating within its premises located within confined boundaries or where allowed by Member States,

on other premises, who generates renewable electricity for its own consumption, and may store and sell self-generated renewable electricity, provided that, for non-household renewable self-consumers, those activities do not constitute their primary commercial or professional activity”

When it comes to the benefits in Art. 21 RED II renewable self-consumers, individually or through aggregators, are entitled to generate renewable energy, including for their own consumption, store and sell their excess production of renewable electricity. This includes power purchase agreements, electricity suppliers and peer-to-peer trading arrangements. When it comes to electricity they consume from or inject into the grid they must not be subject to discriminatory or disproportionate procedures and charges and to network charges that are not cost-reflective.

In relation to their self-generated renewable electricity which remains within their premises, they even must not be subject to any charge or fee. However, exceptions are possible and regulated in Art. 21 para. 1bis lit. a) - c) RED II: If the electricity produced is effectively supported by a support scheme; if the overall share of self-consumption installations exceeds 8% of a Member States total electricity capacity installed; if the electricity is produced in installations above 30 kW.

Further, renewable self-consumers located in the same building, including multi-apartment blocks, are entitled to engage jointly in the aforementioned activities and are allowed to arrange sharing of renewable energy that is produced on their site or sites between themselves, without prejudice to applicable grid costs and other relevant charges, levies and taxes to each renewable self-consumer if applicable. Member States may differentiate between renewable self-consumers and jointly acting renewable self-consumers. Any different treatment towards consumers participating in joint self-consumption shall be proportionate and duly justified.

Renewable self-consumers receive a remuneration, including where applicable through support schemes, for the self-generated renewable electricity they feed into the grid. This remuneration has to reflect the market value and may take into account the long-term value of the electricity fed in to the grid, the environment and society. Moreover Member States shall put in place an enabling framework to promote and facilitate the development of renewable self-consumption based on an assessment of the existing unjustified barriers to and the potential of renewable self-consumption in their territories and energy networks.

2. Local/Renewable energy communities

While the Commission and the Parliament directly address local energy communities in Art. 2 No. 7 and Art. 16 IEM-Dir. and, inter alia, define, grant rights and oblige Member States to enable a framework, the Council only refers to energy communities and provides that they can be engaged in aggregation and are subject to the provisions relevant for such activities and to the same rights and obligations

when acting as final customers, generators, suppliers, DSOs, or other market participants. According to Art. 2 No. 7 a local energy community is an association, a cooperative, a partnership, a non-profit organisation or other legal entity that has to be effectively controlled by local shareholders or members.

The Commission provides that local energy communities can access all organised markets either directly or through aggregators or suppliers in a non-discriminatory manner and are subject to fair, proportionate and transparent procedures and cost reflective charges in Art. 16 para. 1 IEM-Dir. The Council adds that energy communities that supply electricity, provide aggregation or other commercial electricity services are subject to the provisions relevant for such activities (Art. 16 para. 1 lit. d) IEM-Dir.), and that they shall be financially responsible for the imbalances they cause in the electricity system (Art. 16 para. 2 a) lit. c) IEM-Dir.). The Parliament adds that they adequately contribute to the costs of the electricity system they remain connected to and operate on the market on a level playing field without distorting competition (Art. 16 para. 1 lit. ca), cb) IEM-Dir.), but also that they are entitled to share electricity from generation assets within the community between its members or shareholders through peer-to-peer trade arrangements for example (Art. 16a) IEM-Dir.).

Art. 22 RED II benefits renewable energy communities. They are entitled to generate, consume, store and sell renewable energy, including through power purchase agreements; to arrange sharing of renewable energy within the community that is produced by the production units owned by the community; to access all suitable energy markets directly or through aggregation in a non-discriminatory manner. Member States shall provide an enabling framework to promote and facilitate the development of renewable energy communities. Thus it can be said that regarding local energy communities the Council and the Parliament foresee an obligation of responsibility while the Commission does not.

III. Data and privacy protection; data access, exchange and collaboration with DSOs

Data and privacy protection on the one hand, data access and exchange on the other hand, are aspects mentioned in the majority of the improved Business Models. The focus is on how data and privacy protection and data access/exchange are addressed by the CE4AE-Package, if the concerns among customers about their personal data being collected can be minimised, and how problems of data exchange are reduced. One general difficulty regarding this topic is that data protection and data access/exchange somehow work against each other to a certain extent: The more data is protected, the less it may be accessed without barriers - and the other way around.

1. Data and privacy protection

In the field of data and privacy protection the Commission proposes that Member States have to set a regulatory framework which contains transparent rules and procedures for data exchange between market participants (the Council mentions

aggregation in particular), in order to ensure easy access to data, while fully protecting commercial data (Art. 17 para 3 lit. c) IEM-Dir.). Art. 20 IEM-Dir. highlights that the privacy and data protection of final customers and, in the area of smart metering, the highest level of cybersecurity protection has to be ensured. According to Art. 23 IEM-Dir. the eligible parties which may have access to the data of the final customer have to be specified (they shall include aggregators and DSOs), and only provided data access in a given case with the customer's explicit consent (the Parliament adds that those parties have to provide customers with an overview of the parties who have access to their data). When it comes to the tasks of the EU DSO entity, Art. 51 IEM-Reg. provides that data management, cyber security and data protection are amongst them.

The Council makes a similar approach as the Commission, but when it comes to eligible parties the Council does not mention aggregators or DSOs as the Commission does, and the customer's explicit consent is not mandatory to provide the data access in a given case, but it is also possible on basis foreseen by the General Data Protection Regulation (GDPR). In the smart metering sector it demands that the costs and principles of proportionality have to be considered (Art. 20 lit. b) IEM-Dir.). Last, the EU DSO entity's tasks include data management, cyber security and data protection as well, but the Council uses a more specified wording.

The Parliament also follows the Commission's proposal in general, yet adds a few clauses. First, regarding Art. 17 IEM-Dir., it highlights that the rules and procedures in the regulatory framework not only have to be transparent but also non-discriminatory, and points out that not only commercial data but also customers' personal data has to be fully protected. In relation to Art. 20 and 23 IEM-Dir. the Parliament highlights the customers' possibilities to access information and to protect themselves (However this is already regulated by the GDPR). Again the eligible parties which may have access to data of the final customer have to be specified and only provided data access in a given case with customer's explicit consent, but also have to provide customers with an overview of the parties who have access to their data if requested (Again already regulated by the GDPR). Again the tasks of the EU DSO include data management, cyber security and data protection, but they are more specified concerning non-discriminatory data access.

To sum up, it can be said no matter how the Trilogue negotiations proceed Member States will be obliged to set a regulatory framework, protecting data to some extent. The Parliament's position highlights the protection of the customers' personal data in particular.

2. Data access, exchange and collaboration with DSO

Regarding data exchange and collaboration with DSO all three positions are fairly similar. While the Parliament provides a few additions, the Council proposes some changes. As stated above, Member States have to set a framework that contains transparent rules and procedures for data exchange (Council: for market participants engaged in aggregation and other electricity undertakings) that ensure easy

access to data while fully protecting commercial (Parliament: “and customers’ personal) data (Art. 17 para 3 lit. c) IEM-Dir.). Following the Commission’s or Parliament’s position a framework shall also ensure that it will be possible for local energy communities to conclude an agreement with a DSO to which their network is connected, without limitations (Art. 16 para. 2 lit. f) IEM-Dir.). The Council offers this possibility only if the Member State grants the right to manage distribution network in their area of operations and to define the relevant procedures (Art. 16 para. 2b) lit. a) IEM-Dir.).

Member States have to ensure efficient data access and exchange and that the party or parties responsible for data management shall provide access to the data of the final customer to any eligible party (Art. 23 para. 2 IEM-Dir.). All eligible parties have non-discriminatory access to data under clear and equal terms (Art. 34 IEM-Dir.). The DSO has to provide system users with the information they need for efficient access to, including use of, the system (Art. 31 para. 3 IEM-Dir.). DSO and TSO shall exchange all necessary data (Art. 53 para. 1 IEM-Reg.). EU DSO and ENTSO for electricity have to adopt best practices regarding data exchange (Art. 51 para. 2 lit. b) IEM-Reg.). Regarding the task of the EU DSO entity the Parliament highlights data access, standardization and cross-border data exchange. Another change in the Council’s proposal is that the Commission is only empowered to adopt implemented but not delegated acts in the area of data exchange and settlement rules.

Prospective, Member States will have to set a framework regarding data access and exchange and will have to ensure a cooperation of DSOs, demand service providers and final customers in order to define modalities for participation of demand response, aggregators included, and to ensure efficient data access and exchange. It can be highlighted that following the Council’s proposal, data access and exchange get an advanced position when it comes to the customer’s explicit consent. But the Council does not guarantee that aggregators are among the eligible parties as the Commission and the Parliament do.

C. Summary

I. Aggregators/Aggregation in general

Regarding the provisions in the Clean Energy for All Europeans package (CE4AE-Package) that concern aggregators/aggregation, the Council varies from the Commission's proposal in several provisions. The Council, while proposing favourable changes in Art. 22 RED II, Art. 2 No. 6 b), No. 12, No. 16 and Art. 12 IEM-Dir., also proposes some changes that have a rather adverse impact. In comparison, the Parliament foresees changes regarding Art. 16 IEM-Reg., Art. 14, Art. 25 and Art. 26 IEM-Dir. and does not make a proposal which is considered as "not-favourable". It is especially favourable that Art. 6 para. 3 IEM-Reg., Art. 2 No. 6 and Art. 23 IEM-Dir. mention aggregators/aggregation as provided by the Commission and the Parliament.

II. Market access and participation

Regarding market access and participation the Council's proposal offers a more restricted approach while the Parliament mostly bears the most extensive guarantees. The Commission and the Parliament foresee access to the balancing market to all market participants and ensure that all market operators shall be free to develop products and trading opportunities that suit market participants' demand and needs and ensure that all market participants are able to access the market individually or through aggregation; final customers are entitled to generate, store, consume and sell self-generated electricity in all organised energy markets, individually or through aggregators, without being subject to disproportionately burdensome procedures and charges, and final customers, including those offering demand response through aggregators, are encouraged to participate alongside generators in a non-discriminatory manner in all organised markets (Parliament: and capacity mechanisms). A framework must be engaged that encourages the participation of aggregators in the retail market (Not restricted to retail markets in the Parliament's proposal). Further Member States shall ensure access to and foster participation of demand response, including through independent aggregators, in all organised markets.

The Council foresees a financial responsibility for the imbalances final customers cause in the electricity system, and also for market participants engaged in aggregation to be financially responsible for the imbalances they cause in the electricity system (same in the Parliament's position), and that Member States may require undertakings, including independent aggregators to pay compensation to other market participants or their balancing responsible party. The area of balancing services is affected by Art. 5 IEM-Reg. and the Commission's guidelines and network codes. Important guidelines are the Guideline of Electricity Balancing (GO EB) and the Guideline on electricity transmission system operation (SO GL). Those guidelines provide rules or oblige the TSOs to develop terms and conditions or methodologies which have then to be implemented on national area. They – especially the national implementation – can be affected by new EU law. The

CE4AE-Package addresses ancillary services to the effect that it ensures a non-discriminatory treatment, and (at least the Commission and the Parliament) ensure effective participation of aggregators.

III. Self-consumption

Regarding the promotion of self-consumption, Art. 21 RED II creates several rights for self-consumers. Self-consumers, individually or through aggregators, are entitled to generate renewable energy, including for their own consumption, store and sell their excess production of renewable electricity, including through power purchase agreements, electricity suppliers and peer-to-peer trading arrangements. In relation to the electricity they consume from or inject into the grid, without being subject to discriminatory or disproportionate procedures and charges and to network charges that are not cost-reflective; in relation to their self-generated renewable electricity which remains within their premises, without being subject to discriminatory or disproportionate procedures and any charge or fee (However exceptions are possible). In the area of energy communities (Art. 16 IEM-Dir.) the Council and the Parliament foresee an obligation of financial responsibility for local energy communities while the Commission does not.

IV. Data and privacy protection and data access

Member States will be obliged to set a regulatory framework regarding data and privacy protection as well as data access and exchange. They will have to ensure a cooperation of DSOs, demand service providers and final customers in order to define modalities for participation of demand response, aggregators included. The Parliament's position is the only one explicitly mentioning the protection of customers' personal data.

All eligible parties have non-discriminatory access to data under clear and equal terms. In this context it is important that the eligible parties include DSOs and aggregators as foreseen by the Commission and the Parliament in Art. 23 para. 1 IEM-Dir. It also should be possible for local energy communities to conclude an agreement with a DSO without limitations as the Commission and the Parliament propose in Art. Art. 16 para. 2 lit. f) IEM-Dir.

D. Voting recommendations

IEM-REGULATION

Art. 5 IEM-Reg. Balancing markets

→ **SUPPORT PARA. 1 IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 32) AND OPPOSE THE DELETION IN THE COUNCIL'S PROPOSAL**

All market participants, *including those providing electricity generated from variable renewable sources and demand side response and storage services* shall have *full* access to the balancing market, be it individually or through aggregation. Balancing market rules and products shall respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.

→ **SUPPORT PARA. 2 IN THE COUNCIL'S PROPOSAL**

Balancing markets, *including prequalification processes*, shall be organised in such a way as to:

- (a) ensure effective non-discrimination between market participants taking account of the different technical *needs of the power system, a transparent and technologically neutral definition of services and their transparent, market based procurement*,
- (b) *ensure access to all prequalified market participants, be it individual or through aggregation;*
- (c) *respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.*

IEM-DIRECTIVE

Art. 15 IEM-Dir.: Active customers

→ **SUPPORT PARA. 1 POINT A IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 67)**

Member States shall ensure that final customers are entitled to generate, store, consume and sell self-generated electricity in all organised markets either individually or through aggregators without being subject to *discriminatory or disproportionately burdensome procedures and charges that are not cost reflective.*

Art. 16 IEM-Dir.: (Local) energy communities

→ SUPPORT PARA. 2 POINT -a IN PARLIAMENT'S PROPOSAL (AMENDMENT 74)

Member States shall provide an enabling regulatory framework that ensures that *conditions for creating, operating and dissolving local energy networks are well defined.*

→ OPPOSE PARA. 2 POINT b IN COUNCIL'S PROPOSAL AND SUPPORT PARA. 2 POINT f IN COMMISSION'S OR PARLIAMENT'S PROPOSAL

COM/EP: Local energy communities may conclude an agreement with a DSO to which their network is connected on the operation of the local energy community's network.

Council: Energy communities may conclude an agreement with a DSO to which their network is connected on the operation of the local energy community's network, *if a Member State decides, to grant energy communities with a right to manage distribution network in their area of operation and defined the relevant procedures.*

→ SUPPORT Art. 16 a - Electricity sharing - IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 79)

Local energy communities are entitled to share electricity from generation assets within the community between its members or shareholders based on market principles, including applying existing or future ICT technologies such as virtual net metering schemes and those based on distributed ledger technologies, as well as through power purchase agreements or peer-to-peer trade arrangements for example.

Art. 17 IEM-Dir.: Demand response

→ SUPPORT PARA. 1 IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 80)

Member States shall ensure that *the regulatory framework allows* final customers, including those offering demand response through aggregators, to participate alongside generators in a non-discriminatory manner in all organised markets *and capacity mechanisms.*

→ SUPPORT PARA. 3 - INTRODUCTORY PART - IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 82)

Member States shall ensure that their regulatory framework encourages the participation of aggregators in *all markets* and that it contains at least the following elements:

→ SUPPORT PARA. 3 POINT a IN THE COMMISSION'S PROPOSAL

The right for each aggregator to enter the market without consent from other market participants.

→ SUPPORT PARA. 3 POINT b IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 83)

Non-discriminatory and transparent rules clearly assigning roles and responsibilities to all market participants.

→ **SUPPORT PARA. 3 POINT c IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 84)**

Non-discriminatory and transparent rules and procedures for data exchange between market participants that ensure easy access to data on equal and non-discriminatory terms while fully protecting commercial data **and customers' personal data, including minimum information requirements for the aggregator, as well as minimum criteria for the protection of commercially sensitive data for all parties concerned.**

→ **SUPPORT PARA. 3 POINT dc IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 88)**

Final customers who have a contract with independent aggregators shall not face undue payments, penalties or other undue contractual restriction from their suppliers.

Art. 23 IEM-Dir.: Data management

→ **SUPPORT PARA. 1 IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 108),
OPPOSE COUNCIL'S PROPOSAL**

When setting up the rules regarding the management and exchange of data, Member States or, where a Member State has so provided, the designated competent authorities shall specify the eligible parties which may have access to data of the final customer with their explicit consent in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council. For the purpose of this Directive, data shall include metering and consumption data as well as data required for consumer switching, **automated energy efficiency programmes, energy management services and demand response services.** Eligible parties shall include at least customers, suppliers, transmission and distribution system operators, aggregators, energy service companies, and other parties which provide energy or other services to customers.

Upon request, eligible parties shall provide customers with an overview of the parties who have access to their data.

→ **SUPPORT THE FIRST PART OF PARA. 2 IN THE PARLIAMENT'S PROPOSAL (AMENDMENT 109)**

EP: Member States shall organise the **secure** management of data in order to ensure efficient data access and exchange, **data protection, data security, transparency, neutrality and data integrity.**

Annex: Relevant CE4AE provisions mentioned in this paper

Draft IEM-Regulation

Commission	Parliament	Council
Article 5: Balancing market		
1. All market participants shall have access to the balancing market, be it individually or through aggregation. Balancing market rules and products shall respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.	AM 32 1. All market participants, <i>including those providing electricity generated from variable renewable sources and demand side response and storage services</i> shall have <i>full</i> access to the balancing market, be it individually or through aggregation. Balancing market rules and products shall respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.	deleted
2. Balancing markets shall be organised in such a way as to ensure effective non-discrimination between market participants taking account of the different technical capability of generation from variable renewable sources and demand side response and storage.	AM 33 2. Balancing markets shall be organised in such a way as to ensure effective non-discrimination between market participants. <i>All generation, including from variable renewable sources, demand side response and storage shall be enabled to participate on equal footing in balancing markets</i> , taking account of the different technical capability.	2. Balancing markets, including prequalification processes , shall be organised in such a way as to: (a) ensure effective non-discrimination between market participants taking account of the different technical [] needs of the power system, a transparent and technologically neutral definition of services and their transparent, market based procurement, (b) ensure access to all prequalified market participants, be it individual or through aggregation; (c) respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.
8. The procurement of balancing capacity shall be facilitated on a regional level in accordance with point 8 of Annex I. The procurement shall be based on a primary market and organised in such a way as to be non-discriminatory between market participants in the prequalification process individually or through aggregation.	AM 37 8. The procurement of balancing capacity shall be <i>performed by the transmission system operators</i> . The procurement shall be based on a primary market and organised in such a way as to be non-discriminatory between market participants in the prequalification process, <i>whether market participants participate</i> individually or through aggregation <i>subject to technical constraints inherent in managing networks</i> . <i>The reservation of cross-zonal capacity for the exchange of balancing capacity shall be limited to 5% of the available capacity for the exchange of energy of</i>	8. The procurement of balancing capacity shall be performed by the transmission system operators , facilitated on a regional level in accordance with [] Balancing Guideline adopted on the basis of Article 18 of the Regulation 714/2009 . The procurement of balancing capacity shall be market-based [] and organised in such a way as to be non-discriminatory between market participants in the prequalification process individually or through aggregation in accordance with paragraph 4 of Article 40 of the [recast Electricity Directive].

	<i>the previous relevant calendar year between the respective bidding zones.</i>	
Article 6: Day-ahead and intraday markets		
3. Market operators shall be free to develop products and trading opportunities that suit market participants' demand and needs and ensure that all market participants are able to access the market individually or through aggregation. They shall respect the need to accommodate increasing shares of variable generation as well as increased demand responsiveness and the advent of new technologies.	AM 42 3. Market operators shall be free to develop products and trading opportunities that suit market participants' demand and needs and ensure that all market participants are able to access the market individually or through aggregation. They shall respect the need to accommodate increasing shares of variable generation and energy storage as well as increased demand responsiveness and the advent of new technologies.	deleted

Draft IEM-Directive

Commission	Parliament	Council
Article 2: Definitions		
6. 'active customer' means a customer or a group of jointly acting customers who consume, store or sell electricity generated on their premises, including through aggregators, or participate in demand response or energy efficiency schemes provided that these activities do not constitute their primary commercial or professional activity;	AM 24 6. 'active customer' means a final customer or a group of jointly acting final customers who consume, store or sell electricity generated within their premises, including through aggregators or suppliers or traders , or participate in demand response or energy efficiency schemes provided that these activities do not constitute their primary commercial or professional activity;	6. 'active customer' means a final customer or a group of jointly acting final customers who consume or store [] electricity generated on the same site or sells self-generated electricity [], provided that these activities do not constitute their primary commercial or professional activity;
		6b 'market participant' means a natural or legal person buying, selling or generating electricity, engaging in aggregation or storage services, including the placing of orders to trade, in one or more electricity markets including balancing energy markets;
7. 'local energy community' means: an association, a co-operative, a partnership, a non-profit organisation or other legal entity which is effectively controlled by local shareholders or members, generally value rather than profit-driven, involved in distributed generation and in performing activities of a distribution system operator, supplier or aggregator at local level, including across borders;	AM 25 7. 'local energy community' means an association, a co-operative, a partnership, a non-profit organisation, SME or other legal entity which is based on voluntary and open participation and is effectively controlled by local shareholders or members, the predominant aim of which is to provide local environmental, economic or social community benefits for its members or the local area or areas where it operates rather than where it generates profits, and which is involved in activities such as distributed generation,	7. '[] energy community' means: [] a legal entity which is based on voluntary and open participation , effectively controlled by [] shareholders or members who are natural persons, local authorities, including municipalities, or small enterprises and microenterprises []. The primary purpose of an energy community is to provide environmental, economic or social community benefits for its members or the local areas where it operates rather than financial profits. An energy community can be engaged [] in [] electricity generation, distribution and supply, consumption, aggregation, storage or energy efficiency services, generation

	<i>storage, supply, provision of energy efficiency services, aggregation, electro-mobility and distribution system operation</i> , including across borders;	of renewable electricity [] or provide other energy services to its shareholders or members [];
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<i>Article 15: Active customers</i>		
1. Member States shall ensure that final customers:		1. Member States shall ensure that final customers:
(a) are entitled to generate, store, consume and sell self-generated electricity in all organised markets either individually or through aggregators without being subject to disproportionately burdensome procedures and charges that are not cost reflective;	AM 67 (a) are entitled to generate, store, consume and sell self-generated electricity in all organised markets either individually or through aggregators without being subject to <i>discriminatory or</i> disproportionately burdensome procedures and charges that are not cost reflective;	(a) are entitled [] to act as active customers, without being subject to [] discriminatory technical and administrative requirements, procedures and charges [] ;
(b) are subject to cost reflective, transparent and non-discriminatory network charges, accounting separately for the electricity fed into the grid and the electricity consumed from the grid, in line with Article 59(8).		deleted
		<p>1a. Member States shall ensure that active consumers:</p> <p>(a) are entitled to operate either directly or through aggregation;</p> <p>(b) are entitled to sell self-generated electricity including through power purchase agreements;</p> <p>(c) are entitled to participate in demand response and energy efficiency schemes;</p> <p>(d) are entitled to delegate the management of the installations required for their activities to a third party, including installation, operation, data handling and maintenance;</p> <p>(e) are subject to cost reflective, transparent and non-discriminatory network charges, accounting separately for the electricity fed into the grid and the electricity consumed from the grid, in line with Article 59(8) ensuring they contribute in an adequate and balanced way to the overall cost sharing of system of producing, distributing and consuming electricity in line with Article 16 of the [<i>Electricity Regulation</i>];</p> <p>(f) are financially responsible for the imbalances they cause in the electricity system. To this extent they shall be balance responsible parties or shall delegate their balance responsibility in accordance with Article 4 of the [<i>Electricity Regulation</i>].</p>

		1b. Member States may have different governing provisions for individual and jointly acting final customers in their national legislation provided that all rights and obligations as stipulated in this article are applied to all active customers.
		1c. Member States that have existing schemes not accounting separately for the electricity fed into the grid and the electricity consumed from the grid, shall grant no new rights under these schemes beyond the end of the year 2025.
2. The energy installation required for the activities of the active customer may be managed by a third party for installation, operation, including metering and maintenance.	<p>AM 68</p> <p>2. The energy installation required for the activities of the active customer may be managed by a third party for installation, operation, including metering and maintenance <i>provided that the economic risk connected to the operation of the installation remains with the active customer.</i></p> <p><i>Member States shall ensure that active customers owning a storage facility:</i></p> <p><i>(a) have the right to a grid connection within a reasonable time following the request;</i></p> <p><i>(b) are not subject to additional taxes, surcharges, and fees for the electricity stored in the storage facility;</i></p> <p><i>(c) are distinguished from generators and not subject to related licensing requirements and fees;</i></p> <p><i>(d) are allowed to provide several services simultaneously, if technically feasible.</i></p>	deleted

Article 16: (Local) energy communities		
1. Member States shall ensure that local energy communities:		1. Member States shall [] provide an enabling regulatory framework for [] energy communities ensuring that:
(a) are entitled to own, establish, or lease community networks and to autonomously manage them;	<p>AM 69</p> <p>(a) are entitled to own, establish, or lease community networks and autonomously manage them, <i>as long as the concession system of the Member State is respected;</i></p>	(a) participation in an energy community is open and voluntary;
(b) can access all organised markets either directly or through aggregators or suppliers in a non-discriminatory manner;		(b) shareholders or members are allowed to leave an energy community; in such cases Article 12 shall apply;
	AM 70	

	<i>(ba) (new) shall be subject to balance responsibility in accordance with Article 4 of Regulation (EU) ... [recast of Regulation 714/2009 as proposed by COM (2016)861/2];</i>	
(c) benefit from a non-discriminatory treatment with regard to their activities, rights and obligations as final customers, generators, distribution system operators or aggregators;	AM 71 (c) benefit from a non-discriminatory treatment with regard to their activities, rights and obligations as final customers, generators, distribution system operators, suppliers or aggregators;	(c) shareholders or members of an energy community shall not lose their rights and obligations as household customers or active customers;
	AM 72 <i>(ca) (new) adequately contribute to the costs of the electricity system to which they remain connected;</i> AM 73 <i>(cb) (new) operate on the market on a level playing field without distorting competition;</i>	
(d) are subject to fair, proportionate and transparent procedures and cost reflective charges.		(d) energy communities that supply electricity, provide aggregation or other commercial electricity services are subject to the provisions relevant for such activities;
		(e) relevant distribution system operator shall, subject to fair compensation as assessed by the regulatory authority, cooperate with energy communities to facilitate electricity transfers within energy communities;
		(f) energy communities are subject to non-discriminatory fair, proportionate and transparent procedure, including registration and licensing, and transparent and non-discriminatory and cost reflective network charges ensuring they contribute in an adequate and balanced way to the overall cost sharing of the system in line with Article 16 of the [Electricity Regulation] .
2. Member States shall provide an enabling regulatory framework that ensures that:		2. Member States [] may provide [] in the enabling regulatory framework that [] energy communities:
	AM 74 <i>(-a) (new) conditions for creating, operating and dissolving local energy networks are well defined;</i>	
(a) participation in a local energy community is voluntary;		(a) are open to cross-border participation;
	AM 75 <i>(aa) (new) conditions and standards are set up for local energy communities with networks in order to preserve efficient network planning. These conditions and standards shall also ensure that customers and members in the local energy community receive</i>	

	<i>the same quality and standard of network services that are available to customers outside the local energy community;</i>	
	AM 76 <i>(ab) (new) final customers are entitled to participate in a local energy community;</i>	
(b) shareholders or members of a local energy community shall not lose their rights as household customers or active customers;		(b) are entitled to own, establish, purchase or lease distribution networks and to autonomously manage them subject to conditions set out in Article 16 (2b);
(c) shareholders or members are allowed to leave a local energy community; in such cases Article 12 shall apply;		(c) are subject to exemptions foreseen by Article 38(2);
(d) Article 8 (3) applies to generating capacity installed by local energy communities as long as such capacity can be considered small decentralised or distributed generation;		(d) are entitled to arrange within the community sharing of electricity that is produced by the production units owned by the community, subject to the provisions of this article and retaining community members' rights and obligations as final consumers.
(e) provisions of Chapter IV apply to local energy communities that perform activities of a distribution system operator;	AM 77 (e) provisions of Chapter IV <i>as well as other rules and regulations applying to distribution system operators</i> apply to local energy communities that perform activities of a distribution system operator;	
(f) where relevant, a local energy community may conclude an agreement with a distribution system operator to which their network is connected on the operation of the local energy community's network;		deleted
(g) where relevant system users that are not shareholders or members of the local energy community connected to the distribution network operated by a local energy community shall be subject to fair and cost-reflective network charges. If such system users and local energy communities cannot reach an agreement on network charges, both parties may request the regulatory authority to determine the level of network charges in a relevant decision;	AM 78 (g) where relevant system users that are not shareholders or members of the local energy community connected to the distribution network operated by a local energy community shall be subject to <i>non-discriminatory</i> , fair and cost-reflective network charges. If such system users and local energy communities cannot reach an agreement on network charges, both parties may request the regulatory authority to determine the level of network charges in a relevant decision;	deleted
(h) where relevant local energy communities are subject to appropriate network charges at the connection points between the community network and the distribution network outside the energy community. Such network charges shall account separately for the electricity fed into distribution network and the electricity consumed from the distribution network outside the local energy community in line with Article 59 (8).		deleted

		<p>2a. Member States shall ensure that energy communities:</p> <ul style="list-style-type: none"> (a) can access all electricity markets either directly or through aggregation in a non-discriminatory manner; (b) are treated in a non-discriminatory manner with regard to their activities, and are subject to the same rights and obligations when acting as final customers, generators, suppliers, distribution system operators, or other market participants; (c) shall be financially responsible for the imbalances they cause in the electricity system. To this extent they shall be balance responsible parties or shall delegate their balance responsibility in accordance with Article 4 of the [Electricity Regulation]; (d) with regard to self-consumption, energy communities shall be treated like active customers in accordance with Article 15(1)b; (e) are subject to Article 8 (3) in relation to generating capacity installed by energy communities as long as such capacity can be considered small decentralised or distributed generation.
		<p>2b. Member States may decide, to grant energy communities with a right to manage distribution network in their area of operation and define the relevant procedures, without prejudice to the provisions of Chapter IV and other rules and regulations applying to distribution system operators. If such right is granted, Member States shall ensure that:</p> <ul style="list-style-type: none"> (a) energy communities may conclude an agreement with a relevant distribution system operator or transmission system operator to which their network is connected on the operation of the energy community's network; (b) energy communities are subject to appropriate network charges at the connection points between the community network and the distribution network outside the energy community. Such network charges shall account separately for the electricity fed into distribution network and the electricity consumed from the distribution network outside the energy community in line with Article 59 (8); (c) energy communities do not discriminate or harm customers remaining connected to the distribution system.

	<p>AM 79 Article 16a (new) Electricity sharing <i>Local energy communities are entitled to share electricity from generation assets within the community between its members or shareholders based on market principles, including applying existing or future ICT technologies such as virtual net metering schemes and those based on distributed ledger technologies, as well as through power purchase agreements or peer-to-peer trade arrangements for example.</i></p>	
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Article 17: Demand response through aggregation		
<p>1. Member States shall ensure that national regulatory authorities encourage final customers, including those offering demand response through aggregators, to participate alongside generators in a non-discriminatory manner in all organised markets.</p>	<p>AM 80 1. Member States shall ensure that <i>the regulatory framework allows</i> final customers, including those offering demand response through aggregators, to participate alongside generators in a non-discriminatory manner in all organised markets <i>and capacity mechanisms</i>.</p>	<p>1. Member States shall allow and foster participation of demand response through aggregation. Member States shall <input type="checkbox"/> allow final customers, including those offering demand response through <input type="checkbox"/> aggregation, to participate alongside electricity generators in a non-discriminatory manner in all <input type="checkbox"/> electricity markets.</p>
<p>2. Member States shall ensure that transmission system operators and distribution system operators when procuring ancillary services, treat demand response providers, including independent aggregators, in a non-discriminatory manner, on the basis of their technical capabilities.</p>	<p>AM 81 2. Member States shall ensure that transmission system operators and distribution system operators when procuring ancillary services, treat demand response providers, including independent aggregators, in a non-discriminatory manner <i>alongside generators</i>, on the basis of their technical capabilities.</p>	<p>2. Member States shall ensure that transmission system operators and distribution system operators when procuring ancillary services, treat <input type="checkbox"/> market participants engaging in demand response aggregation, in a non-discriminatory manner, on the basis of their technical capabilities.</p>
<p>3. Member States shall ensure that their regulatory framework encourages the participation of aggregators in the retail market and that it contains at least the following elements:</p>	<p>AM 82 3. Member States shall ensure that their regulatory framework encourages the participation of aggregators in <i>all markets</i> and that it contains at least the following elements:</p>	<p>3. Member States shall ensure that their relevant regulatory framework <input type="checkbox"/> contains at least the following elements:</p>
<p>(a) the right for each aggregator to enter the market without consent from other market participants;</p>		<p>(a) the right for each market participant engaged in aggregation, including independent aggregators, to enter <input type="checkbox"/> electricity markets without consent from other <input type="checkbox"/> market participants;</p>
<p>(b) transparent rules clearly assigning roles and responsibilities to all market participants;</p>	<p>AM 83 (b) <i>non-discriminatory and</i> transparent rules clearly assigning roles and responsibilities to all market participants;</p>	<p>(b) non-discriminatory and transparent rules clearly assigning roles and responsibilities to all <input type="checkbox"/> electricity undertakings engaged in aggregation or affected by the participation of demand response through aggregation;</p>

(c) transparent rules and procedures for data exchange between market participants that ensure easy access to data on equal and non-discriminatory terms while fully protecting commercial data;	AM 84 (c) <i>non-discriminatory and</i> transparent rules and procedures for data exchange between market participants that ensure easy access to data on equal and non-discriminatory terms while fully protecting commercial data <i>and customers' personal data, including minimum information requirements for the aggregator, as well as minimum criteria for the protection of commercially sensitive data for all parties concerned;</i>	(c) non-discriminatory and transparent rules and procedures for data exchange between market participants engaged in aggregation and other [] electricity undertakings that ensure easy access to data on equal and non-discriminatory terms while fully protecting commercial data;
(d) aggregators shall not be required to pay compensation to suppliers or generators;	AM 85 <i>deleted</i>	deleted
	AM 86 (da) (new) market participants engaged in aggregation shall be financially responsible for the imbalances they cause in the electricity system as defined in accordance with Article 4 of Regulation (EU) ... [recast of Regulation 714/2009 as proposed by COM (2016)861/2];	(da) market participants engaged in aggregation shall be financially responsible for the imbalances they cause in the electricity system. To this extent they shall be balance responsible parties or shall delegate their balance responsibility in accordance with Art 4 of the electricity Regulation;
	AM 87 (db) (new) non-discriminatory and transparent rules and procedures to compensate market participants for the energy they deliver during the demand response period in a proportionate manner, under the supervision of the national regulatory authority, without creating a barrier for market entry of aggregators or a barrier for flexibility. Compensation shall be strictly limited to cover the resulting costs. The calculation method for such compensation may take account of the benefits induced by the independent aggregators to other market participants and be subject to approval by the regulatory authority;	(db) Member States may require undertakings, including independent aggregators to pay compensation to other market participants or their balancing responsible party if they directly induce imbalances to these market participants including situations where a perimeter correction is introduced without creating a barrier for market entry of aggregators or a barrier for flexibility. In such cases the compensation payment shall be strictly limited to cover the resulting costs. The calculation method for such compensation may take account of the benefits induced by the independent aggregators to other market participants and be subject to approval by the regulatory authority;
	AM 88 (dc) (new) final customers who have a contract with independent aggregators shall not face undue payments, penalties or other undue contractual restriction from their suppliers;	(dc) final customers who have a contract with independent aggregators shall not face undue payments, penalties or other undue contractual restriction from their suppliers;
(e) a conflict resolution mechanism between market participants.		e) a conflict resolution mechanism between market participants engaged in aggregation and other market participants, including responsibility for imbalance.
4. In order to ensure that balancing costs and benefits induced by aggregators are fairly assigned to market participants, Member States may exceptionally allow	AM 89 <i>deleted</i>	deleted

<p>compensation payments between aggregators and balance responsible parties. Such compensation payments must be limited to situations where one market participant induces imbalances to another market participant resulting in a financial cost. Such exceptional compensation payments shall be subject to approval by the national regulatory authorities and monitored by the Agency.</p>		
<p>5. Member States shall ensure access to and foster participation of demand response, including through independent aggregators in all organised markets. Member States shall ensure that national regulatory authorities or, where their national legal system so requires, transmission system operators and distribution system operators in close cooperation with demand service providers and final customers define technical modalities for participation of demand response in these markets on the basis of the technical requirements of these markets and the capabilities of demand response. Such specifications shall include the participation of aggregators.</p>		<p>5. <input type="checkbox"/> Member States shall ensure that national regulatory authorities or, where their national legal system so requires, transmission system operators and distribution system operators in close cooperation with <input type="checkbox"/> market participants and final customers define technical <input type="checkbox"/> characteristics for participation of demand response in <input type="checkbox"/> all electricity markets on the basis of the technical requirements of these markets and the capabilities of demand response. Such specifications shall include the participation of <input type="checkbox"/> aggregated loads.</p>

<i>Article 23: Data management</i>		
<p>1. When setting up the rules regarding the management and exchange of data, Member States or, where a Member State has so provided, the designated competent authorities shall specify the eligible parties which may have access to data of the final customer with their explicit consent in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council³⁶. For the purpose of this Directive, data shall include metering and consumption data as well as data required for consumer switching. Eligible parties shall include at least customers, suppliers, transmission and distribution system operators, aggregators, energy service companies, and other parties which provide energy or other services to customers.</p>	<p>AM 108 1. When setting up the rules regarding the management and exchange of data, Member States or, where a Member State has so provided, the designated competent authorities shall specify the eligible parties which may have access to data of the final customer with their explicit consent in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council⁵². For the purpose of this Directive, data shall include metering and consumption data as well as data required for consumer switching, automated energy efficiency programmes, energy management services and demand response services. Eligible parties shall include at least customers, suppliers, transmission and distribution system operators, aggregators, energy service companies, and other parties which provide energy or other services to customers. Upon request, eligible parties shall provide customers with an overview of the parties who have access to their data.</p>	<p>1. When setting up the rules regarding the management and exchange of data, Member States or, where a Member State has so provided, the designated competent authorities shall specify the <input type="checkbox"/> rules on the access to data of the final customer by eligible parties on the basis of the <input type="checkbox"/> consent of the final customer or other basis foreseen by in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council³⁷. For the purpose of this Directive, data shall include metering and consumption data as well as data required for consumer switching <input type="checkbox"/>.</p>

<p>2. Member States shall organise the management of data in order to ensure efficient data access and exchange. Independently of the data management model applied in each Member State, the party or parties responsible for data management shall provide to any eligible party with the explicit consent of the final customer, access to the data of the final customer. Eligible parties should have at their disposal in a non-discriminatory manner and simultaneously the requested data. Access to data shall be easy, while relevant procedures shall be made publicly available.</p>	<p>AM 109 2. Member States shall organise the <i>secure</i> management of data in order to ensure efficient data access and exchange, <i>data protection, data security, transparency, neutrality and data integrity</i>. Independently of the data management model applied in each Member State, the party or parties responsible for data management shall provide to any eligible party with the explicit consent of the final customer, access to the data of the final customer. Eligible parties should have at their disposal in a non-discriminatory manner and simultaneously the requested data. Access to data shall be easy, while relevant procedures shall be made publicly available.</p>	<p>2. Member States shall organise the management of data in order to ensure efficient and secure data access and exchange. Independently of the data management model applied in each Member State, the party or parties responsible for data management shall provide to any eligible party access to the data of the final customer on the basis of the explicit consent of the final customer or other basis foreseen by Regulation (EU) 2016/679 []. Eligible parties should have at their disposal in a non-discriminatory manner and simultaneously the requested data. Access to data shall be easy, while relevant procedures shall be made publicly available.</p>
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