



SEDC
Smart Energy Demand Coalition

A new market design for
competition, innovation and
consumer empowerment

**SEDC Assessment of the European Commission's
Proposals on Electricity Market Design**

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The views expressed in this document represent the views of the SEDC as an organisation, but not necessarily the position of a specific SEDC member

Introduction to a new Market Design

The energy system in Europe is undergoing a **major transformation**. It is moving away from the historic model of a centralised system with energy distributed from power station to consumer. **European regulation, technological progress** and **digitalisation** have led to the emergence and maturing of a range of unprecedented solutions and opportunities. A consumer-driven market-participation of distributed, low-carbon energy resources are replacing the supply-driven market based on centralised power plants with a system where variable demand interacts with variable supply at all times.

There is a growing number of engaged consumers, active prosumers and new market entrants offering energy management technologies and services, automation and/or aggregation of demand response in all industrialised countries. This development will bring benefits not only to participating consumers, but also to the overall energy ecosystem, through the reduction of system costs, the integration of increasing shares of renewable energy, and an important contribution to the European security of supply.

Demand Response is the **adjustment** of a consumer's energy use to **consume** when energy supply is plentiful and to **reduce** when energy is scarce, in order to balance the system. The Commission estimates **160GW** of demand response will be available in 2030.

However, today's energy markets hinder the uptake of cost-effective and innovative solutions, and the optimal use of these diverse resources.

Implicit demand response: in response to price signals, enabled through a dynamic price contract with access to a smart meter, usually combined with a services contract or automation of devices.

Explicit demand response: valorising dispatchable consumer flexibility on the various markets, typically via an aggregator endorsing commitments in the markets.

Markets are typically designed around a centralised supply, while demand is often passive and the consumer choice is limited. The European Commission's proposals on the Electricity Market Design offer a unique opportunity to update legislation for today's realities and to accelerate the shift towards a flexible, competitive and environmental friendly energy system, where the demand side is a smart and interactive part of the

energy system.

To this aim, the SEDC advocates **five key principles**.

1. **Open** electricity markets *for all solutions*
2. Provide **fair market access** *for new service providers*
3. **Effective price signals** *at wholesale and retail level*
4. Relevant **data access** *for all service providers*
5. Use of **all decentralised flexibility resources** by network operators

Key principles at a glance

1. Open electricity markets for all solutions

All electricity markets in Europe – wholesale and retail, ancillary services and balancing at transmission and distribution level, and reserves and capacity products – shall be open to all energy solutions on an equal footing. This includes decentralised and aggregated demand, storage and generation.

Appropriate product definitions and gate-closure times shall enable and encourage, rather than hinder, the participation of innovative and distributed solutions. They should be based on actual system needs and not on what historic assets were able to deliver.

2. Provide fair market access for all actors, including new service providers

To give consumers a choice and enable new services and solutions to take off, it is essential that new service providers can freely access the market on an equal footing with existing and established generators or retailers. To this end, a regulatory framework needs to define roles and responsibilities for

Demand-side flexibility

benefits:

- Consumer participation
- Balancing the system
- Cost savings
- Energy security
- New business models, jobs & growth

prosumers or the chosen independent Demand Response aggregator to access the market without prior agreement of the respective consumers' retailer or Balance Responsible Party, who is often a competitor.

Consumers should also be empowered to play an active part in the energy system through generating, storing, and consuming their own electricity, and participating in all energy markets, including through community projects. These new activities should have non-discriminatory access to the distribution network, including network charges, and be subject to fair rules and tariffs alongside other consumers.

3. Effective price signals at wholesale and retail level

The efficiency of Europe's electricity markets depends on the availability of effective price signals that reveal the full value of flexibility.

At wholesale level, upward and downward price variability and scarcity prices must be possible and price caps should be removed so that prices can provide effective investment signals. If a capacity remuneration mechanism is needed, it should be designed to procure the most cost-effective capacity, which will often come from the demand side: a structural and perpetuated overcapacity of generation assets would undermine price signals and stifle innovation.

Digitalisation: is key for smart energy systems. Automation, two-way communication functionalities, as well as aggregation and blockchain applications are key

At retail level, consumers should be able to choose dynamic prices if they wish, and should have access to smart metering to support this.

The allocation basis of taxes and charges should be revisited to support rather than hamper system-friendly behaviour, ensuring cost-reflectivity.

4. Relevant data access for all service providers

The availability of, security of and access to energy data is crucial for a consumer-centric and smart energy system. Today, most consumers are not able to access their own energy information. Relevant data access is key for consumers and/or their chosen service providers to manage their energy usage better through a variety of energy products and services.

With the consumer's consent, relevant energy data shall be made available to all energy service providers that the consumer wishes to work with.

Data provided by System Operators and market actors should enable any energy consumer to make use of off-the-shelf technology solutions, and enable easy switching of service providers and retailers.

5. Use of all decentralised flexibility resources by network operators

Network operators, including Distribution System Operators (DSOs), should be allowed & incentivised to make use of all decentralised and demand-side flexibility solutions offered by market parties when these are more efficient alternatives than traditional investment in the grid.

The market-based procurement of flexibility and capacity services at distribution level will deliver significant cost savings.

Incentive structures should be adapted to ensure this, and appropriate procurement mechanisms should be introduced in alignment with the services and energy markets at wholesale level. In conjunction, network tariffs should support, rather than hamper as today, the use of demand-side flexibility at all network levels.

Analysing the Electricity Regulation and Electricity Directive

The European Commission’s proposals in the Electricity Regulation and Electricity Directive mark a signification step towards achieving these five conditions. Their further enhancement and adoption could be the foundation for a truly competitive, cost-effective and sustainable energy system with the consumer at its heart.

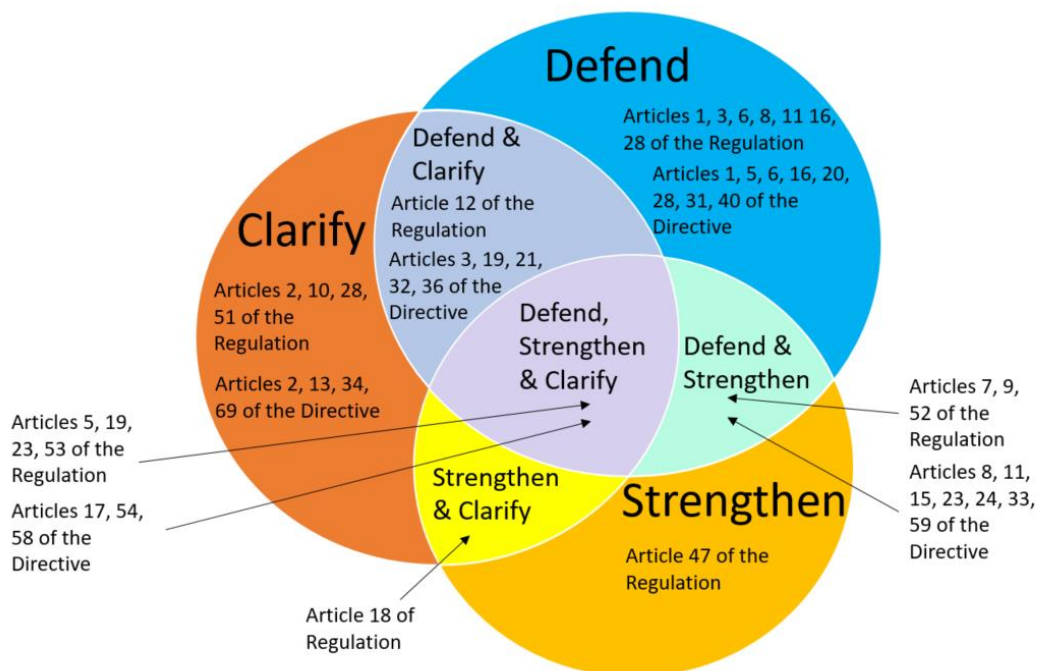
As the proposals are now being scrutinised and amended by the European Parliament and the Member States, the SEDC has analysed the texts according to the five key principles to be met.

The SEDC has categorised the articles in the Electricity Regulation and Directive according to key actions that should be taken regarding each article.

These actions are:

- Defend
- Strengthen
- Clarify

The following analysis goes through the Electricity Regulation and Directive chronologically, with the actions needed according to the SEDC.



Where articles are not commented on, this does not mean that the SEDC wishes to ignore them or deems them unimportant, it simply means that they are not amongst the top priorities of our membership.

Electricity Regulation

Chapter I: Subject matter, scope and definitions

Article 1, Subject matter and scope – Defend

- (a) enable market signals to be delivered for increased flexibility, decarbonisation and innovation
- (b) allow non-discriminatory market access for all resource providers (across technologies and service providers)
 - empower consumers, enable demand response
 - facilitate aggregation of distributed demand and supply
- (d) well-functioning and transparent wholesale market

Justification: The achievement of Europe's energy objectives depends on effective energy market signals. Open electricity markets, such as wholesale markets, ancillary services and balancing at transmission and distribution level and reserves and capacity products, shall be open to all energy solutions on an equal footing, in order to allow for the optimal use of the diversity of available solutions and security of supply.

Article 2, Definitions – Clarify

- (h) value of lost load (VOLL): *Define VOLL as the value after all voluntary (Demand Response) resources up to the VOLL value have been exploited and been triggered.*
- (v) strategic reserve: *Further clarify the difference between capacity mechanisms and strategic reserves: Strategic reserves should concern resources excluded from regular market participation.*

Justification: In order to ensure effective price signals the definitions of value of lost load and the role of capacity mechanisms and strategic reserves must be clear for all market participants.

Chapter II: General rules for the electricity market

Article 3, Principles regarding the operation of electricity markets – Defend

- (d) Market participation of consumers and small businesses shall be enabled by aggregation of generation from multiple generation facilities or load from multiple demand facilities
- (f) Market rules deliver investment incentives for generation, storage, energy efficiency and demand response to meet market needs and thus ensure security of supply
- (i) All generation, storage and demand resources shall participate on equal footing in the market
- (l) Enable the efficient dispatch of generation assets, storage and demand response

- (n) Long-term hedging opportunities which allow market participants to hedge against price volatility risks on a market basis shall be tradable on exchanges in a transparent manner

Justification: *The above principles are crucial for open electricity markets, effective market price signals and fair market access for all actors and service providers.*

Article 5, Balancing market – Defend, Strengthen & Clarify

Defend:

- (1) All market participants shall have access to the balancing market, individually or through aggregation
- (3) Balancing energy procured separately from balancing capacity
- (5) Marginal pricing for the settlement of balancing energy. Market participants shall be allowed to bid as close to real time as possible
- (6) Imbalances settled at a price that reflects real time value of energy
- (8) Procurement in primary market, non-discriminatory between market participants in the prequalification process individually or through aggregation (i.e. portfolio-based markets)
- (9) *Procurement of balancing capacity should be performed for not longer than one day before the provision of balancing capacity and the contracting period shall have a maximum period of one day.*
- (10) TSOs publishing close to real time information

Strengthen & Clarify

- (2) Non-discrimination between market participants taking into account different technical capabilities of generation from variable renewables and demand side response and storage. *This should be specified as concerning product definitions, bid sizes, durations, gate closures etc. For decentralised resources, prequalification should be possible for a pool, rather than individual units.*

Justification: *Market participants and new market entrants, such as demand response aggregators, shall have access to the balancing markets and shall not be discriminated against in terms of prequalification or product definitions. Product specifications (and prequalification based on those specifications) need to be based on system needs, not historic generation characteristics.*

Article 6, Day-ahead and intraday markets – Defend

Defend:

- (1) TSOs and NEMOs jointly organise the management of the integrated day-ahead and intraday markets based on market coupling
- (2a) Non-discriminatory organisation
- (2b) Ability of market participants to contribute to avoid system imbalances
- (2c) Participation in cross-border trade as close as possible to real time
- (2d) Provide prices that reflect market fundamentals
- (2f) Transparency while respecting confidentiality
- (3) Development of products which suit participants' demand and needs

- (3) Ensure that all market participants are able to access the market individually or through aggregation
- (3) Need to accommodate variable generation as well as increased demand responsiveness and advent of new technologies

Justification: Liquid and dynamic day-ahead and intraday markets are key for a competitive, flexible and efficient energy system. Their role becomes even more important as the market contribution of variable and decentralised energy sources increases.

Article 7, Trade on day-ahead and intraday markets – Defend & Strengthen

Defend:

- (1) Market participants allowed to trade energy as close to real time as possible and at least to intraday cross-zonal gate closure time
- (2) Trade in time intervals ‘at least as short as’ imbalance settlement period on day-ahead and intraday markets
- (3) Product definition sufficiently small, with minimum bid size of 1MW or less

Strengthen

- (4) The imbalance settlement period streamlined shall be 15 minutes or less (e.g. 5 minutes) by 2025

Justification: Short-term trading and the reduction of minimum bid-sizes enable a more dynamic and efficient market and have proved successful where already in place in Europe, and in third countries. They are also a precondition for improved market participation of decentralised and variable energy resources. A settlement period of 5 minutes has been successfully implemented and tested e.g. in the PJM market in the US.

Article 8, Forward markets – Defend

- (1) Measures to allow for hedging products across bidding zone borders
- (2) Transmission rights allocation in a transparent, market based and non-discriminatory manner through single allocation platform
- (3) Free development of hedging products

Justification: Hedging products are key to ensure market-based investments in generation and demand-response capacity. In an efficient market, the existence of products like Cap Futures will gain importance in particular also for flexible and variable resources.

Article 9, Price Restrictions – Defend & Strengthen

Defend:

- (1) Removal of wholesale price caps
- (2) Clear conditions and two-year time limitation for derogations
- (3) TSOs must not take measures to change wholesale prices

Strengthen

- (4) MS shall identify policies and measures in their territory which could contribute to indirectly restrict price formation: *The provisions for identifying such restrictions and removing barriers should be strengthened. A guidance document should support the identification or relevant areas.*

Justification: In traditional centralised power systems, where competition is limited and information flows are scarce, wholesale price caps are important to prevent gaming. However, in competitive and increasingly decentralised markets with adequate information flows and the full participation of demand-side flexibility, such price caps are no longer justified. On the contrary, price variability – both upward and downward, including scarcity prices – is a positive sign of an efficient competitive market. This variability is essential to give market signals for flexibility in the electricity system. It is important to note that scarcity prices do not necessarily translate into price peaks for consumers. Energy users should be able to make their own choices regarding the level of risk management provided to them by the electricity retailer or by another service provider.

Article 10, Value of lost load – Clarify

- *Define value of lost load (VOLL) as the value after all voluntary Demand Response resources have been triggered.*

Justification: The Value of Lost Load will differ for different areas and types of customers. A single value can only be defined if Demand Response is fully exploited in the market and all options for voluntary demand reduction or curtailment are triggered.

Article 11, Dispatching of generation and demand response – Defend

- (1) Dispatching of demand response shall be non-discriminatory and market-based

Justification: A market-based approach for dispatching demand response is key to achieve the most efficient and non-discriminatory allocation of resources.

Article 12, Redispatching and curtailment – Defend & Clarify

Defend:

- (2) Market-based mechanisms for curtailment or redispatch and financial compensation
- (2) Non-market-based curtailment or redispatching only based on strict conditions where a market-based approach is impossible
- (2) The provision of market-based resources shall be open to all generation, storage and demand response

Clarify:

- (2) *Specification is needed on what is meant by ‘where the number of generation or demand facilities is too low’. This should be aligned with the Electricity Directive on market-based*

development of storage, where regulators should survey the market interest at least every 5 years.

- (6) *Further specifications are needed for cases of non-market-based curtailment that affects committed resources – i.e. resources that are subject to a delivery obligation e.g. in a balancing or capacity mechanism. It should be clear that the curtailing system operator takes responsibility for any non-delivery in such cases, and compensates the committed resource accordingly (i.e. based on the lost revenues rather than just the day-ahead market price).*

Justification: The SEDC welcomes the proposals for market-based curtailment and re-dispatch, providing that Demand Response is able to fully participate as upward reserves, as an alternative to generation curtailment. Further clarifications are needed also around non-market-based approaches.

Chapter III: Network access and congestion management

Article 16, Charges for access to networks – Defend

- (1) Network charges shall be applied in a way which does not discriminate against energy storage and shall not create disincentives for participation in demand response
- (7) 'May' introduce time differentiated network tariffs (where smart metering).
- (8) Incentives to distribution system operators to procure services for the operation and development of their networks. Introduce performance targets. Recognise as eligible all relevant costs in distribution tariffs.

Justification: In some cases network charges incentivise a flat consumption profile and/or minimise the peak load for a given connection to the grid, which may discourage flexibility. Storage also can be subject to grid charges when energy is injected or taken off the grid. This has a strong negative impact on the business case, even when storage actually supports the network. The design of time differentiated network tariffs can be the optimal solution if tariffs reflect the actual state of the network when congestion occurs. However, this is difficult to implement today. Standard tariffs with a daily time-variable profile are less targeted and can in some cases even be counterproductive. With this background, the option "may" is appropriate, leaving the assessment to regulatory authorities.

*It is crucial that incentive structures for distribution system operators encourage them to **procure services for the operation and development of networks**. The current "asset base" incentive for network owners in most EU member states excludes de-facto all other cost-effective and innovative solutions. A shift towards an incentive based on total costs of network operation offers a level playing field for all options, reducing the risk for unnecessary investments and costs to consumers. DSOs should be rewarded for efficiency, as considerable investments, training of personnel and perceived increase in initial risks are involved.*

Chapter IV: Resource adequacy

Article 18 – Resource adequacy – Strengthen & Clarify

- (3) Member States shall consider removing regulatory distortions, enable shortage pricing, develop interconnection, storage and demand-side measures. *That Member States should only consider removal of distortions is too weak: it should be obligatory.*

Justification: The wording is very unclear and could lead to sub-optimal market conditions. It is not enough to only “consider” removing distortions, enabling shortage pricing or demand-side measures. Such measures are fundamental to the functioning of the market and should always be implemented as a priority.

Article 19 – European resource adequacy assessment – Defend, Strengthen & Clarify

Defend:

- (4c) European resource adequacy assessment should appropriately take account of the contribution of all resources including generation, storage, demand response (existing and future)

Strengthen & Clarify:

- (4c) *The assessment should build on a monitoring of demand-side flexibility available in the system, including existing and potential flexibility from generation, demand-side, interconnections, and storage. See Proposals on Article 58 of the Electricity Directive.*

Justification: The provision of a Resource Adequacy assessment that takes into account all resources, including Demand Response, storage, generation, imports and exports, is an appropriate pre-condition for the introduction of capacity mechanisms. Today, such an assessment is hampered by insufficient information on the availability and potential of demand-side flexibility as described in the proposals on Articles 57- 58 of the Electricity Directive.

Article 23 – Design principles for capacity mechanisms – Defend, Strengthen & Clarify

Defend:

- (1) Capacity mechanisms only for concerns that cannot be eliminated by market improvements
- (2) Member States should consult neighbours
- (3) Shall not create any unnecessary market distortions and shall not go beyond what is necessary
- (4) Emissions performance standard for generation capacity of 550 gr CO₂/kWh

Strengthen & Clarify:

- (xx) *The contribution of all resources should be rewarded in the same manner, including demand-side flexibility and aggregated resources*
- (xx) *Clear provisions on non-discriminatory product definitions prequalification requirements should be included.*

- (xx) The mechanism should reflect the structural advantages provided by distributed and demand-side resources, such as reduced need for transmission capacity in times of peak.
- (xx) When certifying capacities, the specific characteristic of demand-side flexibility and storage should be taken into account.
- (xx) Capacity products should be defined with a time-horizon of no more than 3 years, to reflect the evolving market conditions and to avoid contractual lock-ins, and the same contract lengths should be available to all resources.
- (5) Where a resource adequacy assessment has not identified a resource adequacy concern Member States shall not apply capacity mechanisms.

Justification: Capacity mechanisms are interventions in the market that interact with price signals on the wholesale market. In particular, badly designed mechanisms that lead to an overcapacity of generation can undermine effective market price signals. The provisions should therefore be clarified further. It is important to note that interference with market prices will be lower, the more Demand Response is present in a capacity mechanism instead of generation.

The 550 gr limit is essential in order to avoid support to the most polluting generation capacity in the market. It is worth noting that the threshold is already higher than the 450gr CO₂/kWh eligibility criterion for ETS funds.

Chapter V: Transmission system operation

Article 28 – Consultations – Defend

- ENTSO-E to consult with NRAs, and other system users, including customers and relevant industry associations

Justification: Network Codes affect the whole electricity system with all its actors. It is therefore crucial that all relevant actors have access to the process, based on full transparency.

Article 47 – Provision of information – Strengthen

- (4) TSOs shall publish relevant data on aggregated forecast and actual demand, on availability and actual use of generation and load assets. *They should also collaborate with national regulatory authorities around the monitoring of demand-side flexibility available in the system, including existing and potential flexibility from generation, demand-side, interconnections, and storage. See Proposals on Article 58 of the Electricity Directive.*

Justification: There is a lack of monitoring of flexibility in Europe and third countries like the US are more advanced in terms of monitoring and measuring of demand response. The available flexibility in the system should be measured in terms of capacity contracted (MW) and volumes sold (MWh) for demand response and storage.

Chapter VI: Distribution system operation

Article 51 – Tasks of the DSO entity – Clarify

- (1c) The development of demand response is a crucial development which should be market-based. A potential Code or Guideline should be developed in cooperation between DSOs (the DSO entity), TSOs (ENTSO-E) and market parties.
- (1e) Responsibility for data management, cyber security and data protection is held by different parties in European countries (DSO, TSO, decentralised market approach), and should therefore not be exclusively in the responsibility of the DSO body. If not adequately unbundled, DSOs should not be in charge of data management.

Justification: The establishment of a new DSO entity will take time and structural planning. Therefore, the tasks given must not be urgent. This concerns the development of a demand response framework in particular. Also, the different concerned parties should be involved in the definition of a demand response framework, including but not limited to DSOs.

In terms of data management, any collector of data should be neutral to all parties, and therefore only unbundled DSOs should be accepted.

Article 52 – Consultations in the network code development process – Defend & Strengthen

Defend:

- Includes consultation of important stakeholders, including customers, relevant industry associations, stakeholder platforms, transparency on meeting documents etc.

Justification: Network Codes affect the whole electricity system with all its actors. It is therefore crucial that all relevant actors have access to the process, based on full transparency.

Strengthen:

- The DSO entity shall include an advisory committee to involve stakeholders in the elaboration of network codes.

Justification: Stakeholders should be fully part of the elaboration of network codes, as codes have an important impact on all energy actors and they can bring on board their expertise in the drafting of the codes.

Article 53 – Cooperation between DSOs and TSOs – Defend, Strengthen & Clarify

Defend:

- Exchange all necessary information regarding the performance of generation assets and demand response, coordinate access to resources.

Strengthen & Clarify:

- In particular, DSOs and TSOs have to coordinate with regard to the definition of standardised and streamlined flexibility products (with a view to Electricity Directive Art 32).

Justification: Both TSOs and DSOs need to access flexibility resources. Coordination should ensure that resources committed to one system operator are not unexpectedly curtailed by another system operator:

coordination and compensation rules should be clear to protect market parties from penalties for non-delivery due to curtailments.

As DSOs are expected to source flexibility in the market, the generation definitions at all levels have to be streamlined in order to enable service providers to switch between offering to the DSO or TSO, or indeed to other market parties, without barriers.

Electricity Directive

Chapter I: Subject matter and definitions

Article 1 – Subject matter – Defend

- Integrated, competitive, consumer-centred and flexible markets
- Consumer empowerment and protection
- Open access to the market and third party access to infrastructure

Justification: These underlying principles are key for open and fair markets, as detailed in the SEDC key principles of ‘open electricity markets’ and ‘fair market access’, enabling innovation and reaping the value of decentralised assets through digital solutions. They must be guarded as solid foundations for the rest of the directive.

Article 2 – Definitions – Clarify

- (15) An ‘independent aggregator’ can be affiliated to a supplier, but not to the same customer’s supplier

Justification: It is crucial to get the definitions correct in order to be able to make further provisions, for example on the aggregator framework. An aggregator generally can also be integrated with the same customer’s supplier, an independent aggregator is not integrated. Both independent and integrated aggregators should be subject to the same rules and have the same possibilities and responsibilities. However, the concept of an independent aggregator is important to establish and to ensure market access for these new parties.

Chapter II: General rules for the organisation of the sector

Article 3 – Competitive, consumer-centred, flexible and non-discriminatory electricity market – Defend & Clarify

Defend:

- (1) National legislation should not unduly hamper demand response, flexible energy generation or e-mobility
- (1) Electricity prices reflect actual demand and supply

Justification: Allowing electricity prices to truly reflect supply and demand is crucial for effective price signals for investment and to consumers.

Clarify:

- (2) No undue barriers for market entry for generation and supply undertakings *and also for demand response providers*

Justification: New services and solutions should not be discriminated against, as is the case today between demand response and generation. It is key that new service providers freely access the market on an equal footing with existing and established generators or retailers.

Article 5 – Market based supply prices – Defend

- (1) No regulated prices
- (3) Five year phase out of price setting in certain circumstances (vulnerable customers)

Justification: At wholesale level, upward and downward price variability and scarcity prices must be possible as effective investment signals. The Commission’s proposals for the controlled removal of retail price caps are a pre-condition for an effective market that encourages system-friendly consumer behaviour, while protecting vulnerable consumer through targeted innovation and support programmes.

Article 6 – Third-party access – Defend

- (1) Ensuring third party access to transmission and distribution systems, without discrimination

Justification: Consumers should be empowered to play an active part in the energy system through generating, storing, consuming their own electricity, and engaging in community projects. The non-discriminatory use of the distribution network is vital to enable this.

Article 8 – Authorisation procedure for new capacity – Defend & Strengthen

Defend

- (3) Specific authorisation procedures for small decentralised and/or distributed generation

Strengthen

- (2 a-j) When deciding on new generation capacity Member States should consider the levels of demand response potential in the affected area, which could be a cheaper alternative to new capacity.

Justification: The Demand Response potential in Europe is estimated in the Impact Assessment at 160GW for 2030. This is a significant potential which can replace polluting power plants and substantially reduce the need for new generation capacity - in particular also as a cost-effective alternative to the most expensive back-up capacities.

Chapter III: Consumer empowerment and protection

Article 11 – Entitlement to a dynamic price contract – Defend & Strengthen

Defend:

- The definition of a dynamic price contract in Article 2.11 reflects the price at the spot market or at the day ahead market at intervals at least equal to the market settlement frequency. [This will mean at 15 minute intervals from 2025]
- (1) Any customer can have a dynamic price contract

- (2) Customers informed of risks and opportunities
- (3) NRAs to report annually on developments

Strengthen:

- Member States should consider the distribution of levies and other retail price elements besides the energy component in the end-user's energy bill so as to avoid distortions and blunting effects on price signals.

Justification: Customers should be enabled to choose dynamic prices if they wish, and should have access to smart meters supporting this. The entitlement to a dynamic price contract is essential to give consumers the choice to make use of their own – usually automated - flexibility resources to save costs and support the power system. This is a pre-condition for implicit demand response – where consumers react to price signals and make savings on their energy bills for using electricity when it is cheap. The high share of fixed components in end-user electricity prices in European countries has a significant blunting effect on energy price signals. This creates a counter-incentive to flexibility. To reduce this effect, different options could be explored, for example:

- *Dynamic levies (e.g. for the currently fixed renewables/CHP/efficiency support instruments) could be considered, taking into account the full impact on consumers and the power system.*
- *Shifting such price components to the point of fuel consumption, rather than final electricity use, could be assessed.*

Article 13 – Contract with an aggregator – Clarify

- (2) *A termination period can be pre-defined between the aggregator and the customer. Given the difference between the relationship a consumer has with an aggregator and with a supplier, the proposed three-week termination period appears inappropriate for different reasons.*

Justification: The role of an aggregator (independent or not) and role of a supplier are very different. Suppliers typically have a great deal of power over consumers, because they are providing an essential service, and hence consumers may be fearful that a dispute with a supplier could lead to an interruption in service. The power balance between an aggregator and a consumer is entirely different: the aggregator is dependent on the consumer's cooperation in providing a service. They have no power over the consumer. As such, the need for strong consumer protection measures – such as rapid termination rights – in this relationship is much less compelling than in the supplier relationship. While the highest levels of consumer protection must be upheld, it should be reflected that the aggregator often requires a detailed assessment of a consumer's flexibility potentials and sometimes even the installation of automation equipment. At the same time, the aggregator often has to wait for long periods in order to have their portfolio accepted. In order to ensure security of supply, any contract termination time should take such approval periods into account, allowing an aggregator to secure an alternative portfolio for the provision of committed system services.

Article 15 – Active customers – Defend & Strengthen

Defend:

- (1a) Generation, storage, consumption can sell in all organised markets
- (1b) Cost-reflective, transparent, non-discriminatory network charges

- (1.1.) The installation may be managed by a third party

Strengthen:

- (1b) Member States should be encouraged also to consider cost-reflective, transparent and non-discriminatory taxes and levies. These principles should apply to active and non-active customers.

Justification: Consumers must be able to participate in the market alongside all other actors. In practice, residential consumers, as well as many commercial and industrial consumers, will often go through a service provider to minimise risks, enhance value through aggregation and make access simple. Direct contracting between DSOs and consumers should not be made possible as this would violate unbundling requirements.

Article 16 – Local energy communities – Defend

Defend:

- (1a) Local energy communities can access all organised markets without discrimination

Justification: Active customers, also known as prosumers, and local energy communities, are advancing competition, consumer choice and the development of flexibility in the energy system. They must be enabled to participate in markets and be treated in a non-discriminatory manner.

Article 17 – Demand response – Defend, Strengthen & Clarify

Defend:

- (3a) Aggregators should be able to enter the market *without consent* from other market participants
- (3e) A conflict resolution mechanism between market participants
- (5) Foster participation of demand response including through independent aggregators in all organised markets. Aggregators delivering Demand response in any market should be on equal footing with generators.

Justification: Consumers and aggregators must be able to access all markets, without barriers. Enabling independent aggregation is important for the healthy growth of market competition around consumer-centric services. Evidence from markets around the world shows that for these services to be successful and lead to market growth, it must be possible for consumer flexibility to be unbundled from the sale of electricity to the same consumer.

It is a key precondition to enable aggregator access to the markets, without requiring prior consent of other market participants. The “other market participants” could be the customer’s supplier or balance responsible party. In some cases, these will be direct competitors of an aggregator. Even where they do not compete directly, participants may have other reasons not to cooperate, such as a desire to avoid damaging the value of their supply-side assets.

The right for aggregators to access the market and work with consumers without prior consent of other market parties should be established as fast as possible. Different models are possible, depending on the share of Demand Response in a market. It is important that models are proportionate to the volumes

and activities. Detailed discussions on models should not be used to further delay the aggregator access in principle. Positive examples can be found e.g. for balancing markets in the UK, Belgium and France, where access is/was allowed (with a simple uncorrected model) while a framework is/was being fine-tuned further.

Clarify & Strengthen:

- (1) National regulatory authorities should *not only encourage* final customers, including through independent aggregators, to participate alongside generation in all markets and mechanisms, they should additionally *allow and enable* this, and ensure DR is on an equal footing with generation in any market or mechanism.
- (2) In particular, TSOs and DSOs should treat demand response providers, including independent aggregators, *alongside generators* in a non-discriminatory manner.
- (3) National regulatory frameworks should ensure participation of aggregators *in all markets and mechanisms, not only retail markets*
- (3a) Aggregators should be able to *access the consumer*, enter the market *and participate and valorise demand response*, without consent from other market participants
- (3c) Rules and procedures on data exchange should be *clarified to include minimum information requirements for the aggregator, as well as minimum criteria for the protection of commercially sensitive data for all concerned parties.*
- (3d) Aggregators shall not be required to pay compensation to suppliers or generators: *clarify mechanisms that enable suppliers to capture the benefits and costs incurred on their sourcing costs. (As a simple solution while traded volumes are small, and until more detailed models are defined, Member States could use the so-called ‘uncorrected model’ that has been successfully implemented in countries like the UK and Belgium.)*
- (4) Replace to clarify balancing responsibilities: *the aggregator should always be balancing responsible for the volumes he has committed and delivers **during the activation of demand response activities**, as a generator would be when activating generation.*
- (x) Member States can encourage demand response by enabling a simple market access approach until a more detailed model has been defined.
- (5) NRAs, and/or TSOs and DSOs, define technical modalities for participation of demand response, *in close cooperation with demand response service providers.*

Justification:

To enable independent aggregators to enter the market at scale, it is critical that the role and responsibilities of these new entrants are clarified. In particular, it is key that the relationships between retailers, balancing responsible parties (BRPs), and independent aggregators are clear, fair, and allow for fair competition between market parties.

A regulatory framework should be put in place that is proportionate to the challenges faced by aggregators, and ensures that they can access the market successfully without depending on the agreement of the consumer’s retailer. Such a framework should define standardised processes for information flows on a need-to-know basis, as well as volume and financial settlements between the different market parties, with a view to avoiding any significant distortive impacts on the retailers/BRPs.

Article 19 – Smart metering – **Defend & Clarify**

Clarify:

- (1) Energy management services, innovative pricing formulas and smart metering should go together and all be enabled, not be alternative options

Defend:

- (2) Implementation of smart metering system that assist the active participation of customers in the electricity market
- (5) Where CBA is negative the assessment is revised periodically

Justification: Access to a smart meter is a precondition for consumer to participate in implicit Demand-Side Flexibility and innovative services linked with this.

Article 20 – Smart metering functionalities – **Defend**

- (a) Smart metering functionalities which accurately measure actual time of use.
- (a) Consumption information easily available at no extra cost to consumers
- (d) Meters can account for electricity put into grid from self-generation
- (g) Smart metering system enabled customers to be metered and settled at the same time resolution as the imbalance period in the national market
- (e) Customers or a third party on their behalf can request and get access to metering data via a local standardised communication interface and/or remote access.

Justification: Smart metering systems should be able to support innovative services and technologies in line with the market. The above functionalities are essential to this end.

Article 21 – Entitlement to a smart meter – **Defend & Clarify**

Defend:

- (1.) Every final customer is entitled to have a smart meter installed or upgraded under fair and reasonable conditions.

Clarify:

- *The stipulation in (1a) of ‘where technically feasible’ should be removed*

Justification: A smart meter is necessary to support new services, including a dynamic price contract and consumer participation in implicit demand response, by signalling price changes to the consumer and measuring and recording their reactions to the signals.

Article 23 – Data management – **Defend & Strengthen**

Defend:

- (2) Data shall be shared with any eligible party that the final customer wishes to share with
- (1) ‘Eligible parties’ include aggregators and energy service companies

Strengthen:

- (1) Data includes metering and consumption data, and data for switching. This should be specified further to include data necessary for energy management services and demand response activities. It should include:
 - historical interval data, going back at least one year, to identify relevant patterns,
 - real-time data, about the consumer's consumption at any moment. This data is important to give an indication, but does not need to be of settlement grade,
 - settlement data, which can be delivered with some delay
 - standing data, regarding the classification of the consumer-size, tariff class and network connection area.

Justification: Today, energy retailers have a large advantage as they receive DSO data, whereas new types of service providers don't. Traditionally, in most EU countries DSOs access and collect data and make them available to retailers for billing purposes. Other energy service providers typically do not have access to this data.

Availability, security and access to energy data is the backbone of a consumer-centric and smart energy system. The necessary data access can help consumers and/or their chosen service providers to better manage their energy usage through a variety of energy products and services. Based on the consumer's consent, relevant energy data should be made available to all selected energy service providers the consumer wishes to work with.

It is crucial to specify further the data needed: historical interval data, real-time data, settlement data, standing data.

Article 24 – Data format – **Defend & Strengthen**

Defend:

- (2) Define a common European data format
- (3) No additional costs to final customers for access to their data. Regulated entities shall not profit from data services.

Strengthen:

- Underlying the data format, the development of universally standardised approaches for automatic device identification and authentication, as these will play an increasingly important role.

Justification: Data provided by Distribution and Transmission System Operators, but also from retailers and service providers should enable any energy consumer to have a system put in place that allows them to make use of new off-the-shelf technology solutions, and consumers should be able to switch service providers and retailers easily and flexibly.

Universally standardised approaches for automatic device identification and authentication will play an increasingly important role for interoperability and cybersecurity. The harmonised European data format should take into account any national formats where they have been developed and successfully implemented before.

Article 28 – Vulnerable customers – **Defend**

- (2) Measures to address vulnerable customers shall not impede the effective opening of the markets

Justification: Measures to address vulnerable consumers are essential to secure fair and affordable access to basic services. Such measures should be targeted and designed in a way that they do not impede the effective functioning of the markets or hamper innovation. Rather than general price caps or guarantees, efficiency measures and targeted financial incentives should be considered.

Chapter IV: Distribution system operation

Article 31 – Tasks of distribution system operators – Defend

- (2) DSOs must not discriminate between system users
- (3) DSOs shall provide information needed for use of the system
- (5) Procuring energy to cover energy losses in a transparent, non-discriminatory and market-based way
- (5) The procurement of non-frequency ancillary services by a DSO shall be transparent, non-discriminatory and – unless justified by a CBA - market-based, with effective participation of all resources and players, unless justified by a cost-benefit analysis,

Justification: DSOs should be encouraged to make use of all decentralised and demand-side flexibility solutions offered by market parties for all ancillary and balancing services, as cost-effective alternative to network investments. The SEDC supports the provisions for a market-based (where feasible), transparent and non-discriminatory procurement for non-frequency ancillary services and the definition of standards products to this end.

Article 32 – Tasks of DSOs in the use of flexibility – Defend & Clarify

Defend:

- (1) Regulatory frameworks shall allow and incentivise DSOs to procure flexibility services, such as demand response, distributed generation or storage
- This shall be done according to transparent, non-discriminatory and market-based procedures
- The new network development plan should also demonstrate the use of demand response and other demand-side management measures
- Development of a network development plan to include re-charging points for EVs

Clarify:

- In (1) standardised products for flexibility should be defined *jointly* with other system users, such as TSOs and demand response service providers, as opposed to ‘effective participation’. The SEDC believes that the legislative proposal regarding the streamlining of different flexibility markets should be further specified to enable effective flexibility platforms at least per market zone. This would allow market parties to offer their services where they are most required at any moment – be this on the wholesale markets, for system support at TSO level or at DSO level.
- It should be further clarified that incentive structures for DSOs should reflect both capital and operational expenditures, so as to appropriately encourage efficient system management based on the principles above.

Justification: DSOs should be encouraged to make use of the most efficient solutions. This should include all decentralised and demand-sided flexibility solutions offered by market parties for all ancillary and balancing services, as cost-effective alternative to network investments. The SEDC supports the provisions for a market-based, transparent and non-discriminatory procurement for non-frequency ancillary services and the definition of standards products to this end.

Article 33 – Integration of electro-mobility into the electricity network – Defend & Strengthen

Defend

- (1) DSOs cooperate with EV charging point owner/developer/operator in a non-discriminatory basis
- (2a and b) The ownership, development and management of recharging points Vehicles should generally be reserved for market parties, rather than network operators.

Strengthen

- Text should be included on the importance of smart charging in order to integrate EVs into the whole electricity system in a grid and user-friendly way

Justification: In order to safeguard the efficient functioning of the electricity market, the SEDC supports the proposed principles establishing that the ownership, development and management of Electric Vehicles charging facilities should preferably be reserved for market parties, rather network operators, that should remain neutral actors.

An electric vehicle-increases the electricity load of the building it is being charged at, especially if several EVs are plugged in at once. Smart charging is “when the charging cycle can be altered by external events, allowing for adaptive charging habits, providing the EV with the ability to integrate into the whole power system in a grid and user-friendly way”, according to CEN-CENELEC, the European standardisation body.

Article 34 – Tasks of DSOs in data management – Clarify

- In cases of insufficient unbundling of DSOs from generation or retail activities in particular, Member States and regulatory authorities should opt for alternative data management models, where the management of data can be done by different parties and actors.

Justification: Demand Response data, for example, are typically highly commercially sensitive and there must not be a risk of this and other data to be accessible – even if indirectly – to a competing integrated market party integrated with the DSO.

Article 36 – Ownership of storage facilities – Defend & Clarify

Defend

- (1) DSOs shall not be allowed to develop, manage or own storage
- (2a) Unless there is no market interest

Clarify

- (2b) a further specification and limitation is needed of cases when facilities are necessary for DSOs to fulfil obligations.
- (4) It should be clarified what happens with existing facilities owned by a DSO at the point when market parties express interest

Justification: In order to safeguard the efficient functioning of the electricity market, the SEDC supports the proposed principles establishing that the ownership, development and management of storage facilities should preferably be reserved for market parties, rather network operators, that should remain neutral actors.

Chapter V: General rules applicable to the Transmission System Operator

Article 40 – Tasks of TSOs – Defend

- (1d) Ensuring the availability of all necessary ancillary services, including those provided by demand response and storage
- (1f) Ensuring non-discrimination between system users
- (4a) Shall procure balancing services and, unless justified by a CBA, non-frequency ancillary services in a transparent, non-discriminatory and market-based way
- (4b) Ensure effective participation of all market participants, including renewables, demand response, storage, aggregators, by defining technical modalities for participation in these markets

Justification: In line with the approach for DSOs, the specifications on the TSO procurement of balancing services and non-frequency ancillary services are welcome and necessary. In particular, the adjustment of technical modalities is important to overcome existing barriers.

Chapter VI: Unbundling of Transmission System Operators

Article 54 – Ownership of storage and provision of ancillary services by TSOs – Defend, Strengthen & Clarify

Defend:

- (1) TSOs shall not be allowed to own, manage or operate storage or assets that provide ancillary services
- (2a) Unless lack of market interest

Strengthen:

- (4) Regular consultation and assessment of market interest: *as is the case for DSOs and storage ownership, the consultation should be conducted by the regulatory authority and not by the TSOs themselves*

Clarify:

- (2b) Ownership rights if necessary to ensure secure, efficient, reliable transmission: *this needs to be clarified to support interpretation of the needs.*

Justification: In order to safeguard the efficient functioning of the electricity market, the SEDC supports the proposed principles establishing that the ownership, development and management of storage facilities should preferably be reserved for market parties. In line with the rules of unbundling, regulated actors should not engage in activities that could be delivered by the market.

Chapter VII: National Regulatory Authorities

Article 58 – General objectives of the regulatory authority – Defend, Strengthen & Clarify

Defend:

- (g) customer oriented, effective competition, consumer protection
- (h) compatibility of necessary data exchange processes

Defend & Clarify:

- (a) promote a competitive, flexible, secure and environmentally sustainable internal market in electricity and effective market opening for all customers and suppliers: *opening for all market actors, including independent aggregators*
- (d) non-discriminatory systems, consumer oriented, system adequacy, integration of distributed generation: *add demand response*
- (e) removing barriers for new market entrants, facilitating access for storage and renewables: *add demand response*

Strengthen:

- (x) detailed monitoring and annual reporting on the availability and potentials of flexibility, including demand-side flexibility and consumer participation.

Justification: The monitoring of flexibility, including in particular also demand-side flexibility in terms of capacity and volumes, is an essential pre-condition for several system relevant activities, including Resource Adequacy Assessments (Electricity Regulation Articles 18-19) and Network Planning. Other countries and regions, for example including the USA for implicit and explicit demand side flexibility (conducted by Federal Regulatory Commission (FERC)) and Australia for implicit demand side flexibility (conducted by the Australian Energy Market Operator (AEMO) for implicit DR) prepare regular monitoring, based on specific criteria. The same approach should be included in this legislation to ensure cost-efficient and secure operation and functioning of the European electricity system that takes into account all available resources.

Article 59 – Duties and powers of the regulatory authority – Defend & Strengthen

Defend:

- (1a) Fixing or approving distribution tariffs

- (1c) Approving products and procurement process for non-frequency ancillary services
- (1k) Measuring the performance of the TSOs and DSOs in relation to the development of a smart grid that promotes energy efficiency and the integration of RES based on a limited set of Union-wide indicators
- (1m) Monitoring transparency of wholesale prices
- (1n) Monitoring market opening

Strengthen:

- (1n new) Monitoring of flexibility in the system
- (1v) Monitoring investment in generation and storage *and demand response*

Justification: There is a lack of monitoring of flexibility in Europe and other countries are more advanced in this respect. For example, demand response in Europe is far behind other countries such as the US in terms of monitoring and measuring. The available flexibility in the system could be measured in terms of capacity contracted (MW) and volumes sold (MWh) for demand response and storage.

Chapter VIII Final provisions

Article 69 – Reporting – Clarify

Progress report referred to in Article 29 of Governance (this is on State of the Union Report): *It must be ensured that all provision relevant for monitoring and reporting are reflected in the Governance.*