

## Trilogue on Electricity Market Design: An opportunity for future-proofing the grid

The trilogue discussion on electricity market design is paving the way for the achievement of the Clean Energy Package's energy efficiency and renewables objectives. The electricity grid infrastructure is at the centre of this new market design. We need therefore to ensure our grid is future-proof: robust, smart and ready to adapt to the upcoming changes in the market.

For grid technology providers, a pragmatic approach to a truly modern grid is to bring greater transparency in network operation. With this view in mind, we would like to highlight four priorities in both the Electricity Regulation and the Electricity Directive that are contributing to transparency.

### 1. Grid smartness monitoring process

Electricity Regulation, article 16 paragraph 9 (new)

A "grid smartness monitoring process" would help foster transparency on the transition to smarter grids in Europe, increase the awareness of smart technologies and their potential and promote the use of best practices. By establishing a set of KPIs, it will help incentivise the necessary investments in innovative technologies to help Member States reach their emissions reduction and energy efficiency targets. In addition, such a tool would support and strengthen the development of a common methodology to make the grid infrastructure more energy-efficient, as agreed in the compromise text on the revised Energy Efficiency Directive (Article 15, paragraph 2).

✓ *Recommendation: support EP amendment 84*

### 2. Transparent redispatch of renewable energy

Electricity Regulation, article 12

Renewables energy must make an increasing part in the electricity generation mix to reach EU's RES targets. However, renewable energy is often curtailed to make space for inflexible conventional energy production that keeps generating even when prices become negative. The presence of the conventional generation is needed for balancing the network load but must be kept to a minimum. Information on the volume, costs and reason for redispatch should be reported and made publicly available to have a clear overview on the improvements needed to better make use of renewable energy generation on the grid.

✓ *Recommendation: support EP amendment 56*

### 3. Incentives for DSO to invest in flexibility and digitisation of the networks

Electricity Regulation, article 16 paragraph 8

Performance targets for networks operators are important for increasing transparency of the grid operation. These targets should not be limited to energy efficiency but should also include flexibility and digitalisation that are essential to enable inter alia demand response and decentralised flexibility for a more efficient and cost-effective management of the energy resources by the grid.

➤ *Recommendation: support EP amendment 81*

### 4. Grid performance measuring by the national regulator

Electricity Directive, art 59(k)

Public authorities in Member States should be able to track smart grids deployment and make sure it has a positive effect on network reliability, renewable energy integration and energy efficiency by using a set of harmonised indicators. On the network operators side, such a process would help to better demonstrate and explain the investment plan to regulators and the public. The publication of a national report every two years contributes to a greater transparency on grid operation. The changes brought in the General approach of the Council are weakening the text as the reference to union-wide indicators has been taken out and the reporting would only happen every four years.

✓ *Recommendation: support Commission proposal*

### 5. Sustainable business models for local energy communities

Electricity Directive, Art 16

The development of local energy communities (LECs) has the potential to accelerate the energy transition in Europe. By empowering a group of consumers to take ownership of their energy system, LECs contribute to maximising the value of electricity for consumers, increasing production from renewable sources, improving the network's energy efficiency and increasing the resilience of the grid against cybersecurity attacks and black outs.

Microgrids are actively integrated controllable energy systems based on smart technologies and consisting of interconnected energy producers, storage facilities and consumers in a geographical area (e.g. smart districts, islands, villages, neighbourhoods, business parks etc.).

LECs have already started to be implemented but more needs to be done to develop sustainable business models in Europe (US and China being ahead), which includes getting the right regulatory framework at EU level. We therefore believe that both the Commission proposal and the amendments proposed by the EP would give the relevant legal framework for LECs to flourish.

- ✓ *Recommendation: support Commission proposal and EP amendments 25 (definition-article 2), 75, 77 and 79 (new article 16a on electricity sharing)*

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## ANNEX: reference texts

### 1. Electricity Regulation, article 16 paragraph 9 (new)

#### European Parliament Amendment 84

Regulatory authorities shall adopt a set of indicators for measuring the performance of transmission and distribution system operators, which should at least include all of the following:

- (a) volume of curtailed energy in MWh, disaggregated per type of generation source;
- (b) percentage of the length of lines operated under dynamic line ratings;
- (c) percentage of substations remotely monitored and controlled in real-time;
- (d) percentage of the length of lines operated under dynamic line ratings<sup>1</sup>;
- (e) losses in high, medium and low-voltage grids;
- (f) the frequency and duration of power interruptions on the grid.

By [two years after the entry into force of this Regulation], and every two years thereafter, regulatory authorities shall publish a report on the performance of transmission and distribution system operators, together with recommendations for improvement where necessary.

### 2. Electricity Regulation, article 12

#### European Parliament Amendment 56

The responsible system operators shall report at least once per year to the competent regulatory authority, **which shall be transmitted to the Agency**, on:

- a) **the level of development and effectiveness of market-based curtailment or redispatching mechanisms for generation and demand facilities;**
- (b) **the reasons, volumes in MWh and type of generation source subject to curtailment or downward redispatching;**
- (c) **the measures taken to reduce the need for the curtailment or downward redispatching of generating installations using renewable energy sources or high-efficiency cogeneration in the future including investments in digitalisation of the grid infrastructure and in services that increase flexibility;**
- (d) **requests and contractual arrangements made with generating units for them to operate at a certain level of electricity infeed, the necessity of which the system operators shall justify,, specifying to what extent those services could not be provided by other units.**

### 3. Electricity Regulation, article 16 paragraph 8

#### European Parliament Amendment 81

Regulatory authorities shall provide incentives to distribution system operators for the most efficient operation and development of their networks and integrate innovative solutions in the distribution systems, **including through the procurement of services**. For that purpose regulatory authorities shall recognise as eligible and include all relevant costs in distribution tariffs and introduce performance targets in order to incentivise distribution system operators to raise efficiencies, including energy

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<sup>1</sup> (sic) – note from the editor

efficiency, *flexibility and the digitalisation of the distribution networks including the deployment of smart grids and intelligent metering systems*, in their networks.

#### 4. Electricity Directive, art 59(k)

##### Commission proposal (*Support*)

(k)measuring the performance of the transmission system operators and distribution system operators in relation to the development of a smart grid that promotes energy efficiency and the integration of energy from renewable sources based on a limited set of Union-wide indicators, and publish some national report every 2 years, including recommendations for improvement where necessary;

##### Council general approach (*Reject*)

k) [] **assessing** the performance of the transmission system operators and distribution system operators in relation to the development of a smart grid that promotes energy efficiency and the integration of energy from renewable sources [], and publish a national report every [] 4 years, including recommendations [];

#### 5. Electricity Directive, art 16

##### European Parliament Amendment 25

7. 'local energy community' means an association, a cooperative, 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, *storage, supply, provision of energy efficiency services, aggregation, electro-mobility* and distribution system operation, including across borders;

##### European Parliament Amendment 75

(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 the same quality and standard of network services that are available to customers outside the local energy community;

##### European Parliament Amendment 77

(e) provisions of Chapter IV as well as other rules and regulations applying to distribution system operators apply to local energy communities that perform activities of a distribution system operator;

##### European Parliament Amendment 79

Article 16a (new)

Electricity sharing

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.