

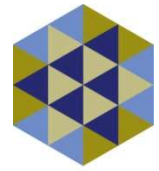


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Demand Side Flexibility in Electricity Market Design

June 2018

Context

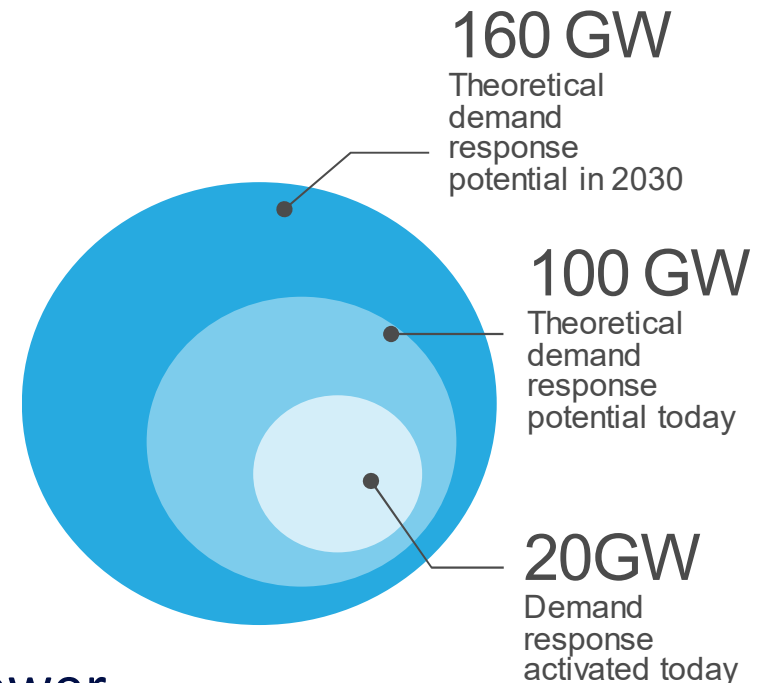


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Demand-side flexibility is the ability of consumers to adapt their electricity consumption at strategic times.

It is both an extremely valuable resource and a remarkably untapped one.

Tapping into the EU's demand-side flexibility potential will benefit and empower individual consumers, both private and professional, reduces total system costs, facilitate renewables integration and contribute to building Europe's smart energy leadership.



What the clean energy package can achieve



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1. Create functioning markets, ensure effective price signals
2. Enable participation by consumers and third parties
3. Encourage use in system operation and planning
4. Ensure consistency with evolution of broader energy system

1. Create functioning markets, ensure effective price signals

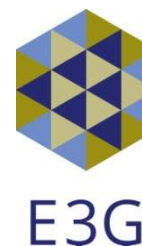


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- Functioning wholesale markets
 - Enshrine principles of open electricity markets, effective market price signals and fair market access for all actors and service providers.
 - Removal of price caps.
 - Small minimum bid size
(smartEn [recommendation](#): minimum bid size of 500kW)
 - As close to real time as possible
(smartEn: no more than 15 minutes on wholesale markets)
- Moving away from regulated prices
- Cost-reflective network charges (see ClientEarth's presentation)

1. Create functioning markets, ensure effective price signals

Regulated prices (EMD Art 5)



Public interventions in price-setting for electricity supply are allowed for energy poor or vulnerable household customers for five years after entry into force. These interventions shall be limited in time and proportionate.

After these 5 years, exemptions may still apply, in so far as it is strictly necessary for reasons of extreme urgency, but should be notified and validated by the European Commission.



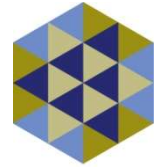
Derogation to intervene can be extended to 10 years after the entry into force (AM 38).



No specifics on what should be the limit in time, or what criteria the beneficiaries should meet. Interventions should avoid influencing wholesale electricity markets.

According to Trinomics:

- 9 MS abolished price regulation before 2008: *AT, CZ, DE, FI, LU, NL, SE, SI, UK*
- 6 MS abolished price regulation since 2008: *EE, EL, HR, IE, IT, LV*
- In 2016, in 12 MS still practice price regulation: *BE, BG, CY, DK, ES, FR, HU, LT, MT, PL, PT, RO, SK*



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2. Enable participation by consumers and third parties

Overall principle of fair access for all actors, no undue barriers to market entry, operation and exit, etc. is necessary but not sufficient.

Specific provisions are also necessary...

- “No supplier consent” rule
- Entitlement to dynamic price contracts
- Smart meters roll out and entitlement to smart meter
- Fair treatment through constraints on “supplier compensation”

2. Enable participation by consumers and third parties 'No supplier consent' (EMD Art 13)



Member States shall ensure that, where a final customer wishes to conclude a **contract with an aggregator**, such engagement **shall not require the consent of the final customer's supplier**.



+ ***NEW*** Entitlement to conclude contract with aggregator (EP AM 60)



General approach adds **derogations** to the 'no supplier consent' rule.

2. Enable participation by consumers and third parties

Dynamic price contracts* (EMD Art 11)



Every final customer is entitled, on request, to a dynamic electricity price contract by his supplier.



Every customer entitled.
+ **clarification** on need to have a smart meter installed (AM 52)
+ need for **clear consent** (AM 53)



Only consumers with smart meters are entitled to a dynamic price contract, from at least **one** supplier.

**'Dynamic' price contracts are a form of electricity pricing contract that reflects the value of electricity at different times within a day. They constitute a price signals that consumers can use to adapt their behaviour (through automation or personal choices) to save on energy expenses, and alleviate system stress.*

2. Enable participation by consumers and third parties

Supplier compensation (EMD Art 17)



Aggregators shall not be required compensate suppliers or generators, other than for any imbalances caused.



Confusing language. Compensation for 'energy delivered, limited to actual costs (just imbalance costs **or the cost of energy procured?**) without causing barrier to entry.

Obligation of compensation? (compensation shall be...)

Calculation of compensation **may** take into account benefits.

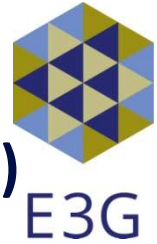


MS **may** require compensation.

Calculation of compensation **may** take into account benefits.

Suggestion: MS may allow compensation. If there is compensation, it shall take into account the benefits and be limited to imbalance costs.

2. Enable participation by consumers and third parties Smart meter roll-out & entitlement (EMD Art 19, 21, annex III)



MS shall roll out smart meters to at least 80% of final consumers, subject to a positive CBA, within 8 years from date of positive assessment.

In case of no roll-out, every consumer is entitled to have a smart meter installed, or upgraded, with functionalities listed in Art 20.



Review of CBA every two years if negative.

Roll-out within **5** years when positive.



No retrofit of existing smart meters to include new functionalities.

Roll-out within 8 years from 'adoption of national framework for the roll-out'.

3. Encourage efficient use in system operation and planning



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All institutions agree on the **objective of improving the efficiency in the operation and development of the electricity system**, and that demand response, storage, distributed generation and energy efficiency can be **effective alternatives to grid expansion or upgrades**.

Specific provisions are needed to ensure this is made possible:

- MS to **consider demand-side alternatives when authorising new generation capacity** (*NEW* AM 42 on EMD Art 8).
- Enable network operators to **use alternatives to system expansion and upgrades** and, when cost-effective, encourage them to do so (EMD Art 32.2; AM 142 on EMD Art 40).
- Define standardized **market products for flexibility services at least at national level**, to avoid fragmentation (AM 120 on EMD Art 32).
- **Consider the potential of demand response and other alternatives in network planning** (AM 121 on EMD Art 32.2; *NEW* AM 145 on EMD Art 51).



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4. Monitoring and consistency with broader objectives

- Through the Energy Union Governance Regulation, MS shall set national objectives related to other aspects of the internal energy market such as increasing system flexibility, smart grids, aggregation, demand response, storage, distributed generation, etc.
- (EMR Art 12.3, AM 56) Reporting on curtailment by TSOs: to be submitted to ACER; must cover notably measures to be taken to reduce need for curtailment, including investments in services that increase flexibility & in digitalisation of grid infrastructure; NRA to publish relevant data with their recommendations for improvement.
- (EMR Art 12.4.2a (new)) DSOs and TSOs shall "ensure that their networks are sufficiently flexible such that they are in a position to manage them".
- (EMR Art 51, AM 145) Regulators have the possibility to raise concerns and request amendments to TSO network plans if doubts arise regarding their consistency with the NECP.

Improvement: NRA ^{E3G} shall check consistency with NECP! 12



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Other resources

- smartEn [trialogues recommendations](#)
- RAP on [getting supplier compensation right](#)
- E3G [propositions for the clean energy package](#)
- Industry [statement on unlocking demand side flexibility](#)



Unlock demand side flexibility for European consumers, innovation and the climate

More information



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Manon Dufour

+32 (0)4 77 76 78 01

manon.dufour@e3g.org

www.e3g.org