





International and EU Climate goals







Transition Towards Smart Energy System

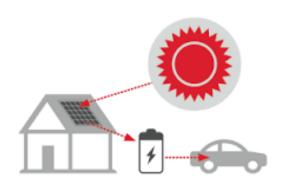






Energy transition needs new rules

Law lagging behind (regulatory disconnection Butenko 2016)



Changing role consumers

Prosumers

Demand response

Flexibility

Aggregators

Local energy communities





Energy transition needs new rules

New roles and responsibilities other market players

Volatile energy supply

Peak loads (storage, EV charging units)





DSOs are neutral market facilitators

local flexibility markets and local congestion management

New DR contracts/relations vis-a-vis consumers





Reinstated and new rules for consumer empowerment

- 1) The right to free choice of supplier (existing right; Article 4);
- 2) While respecting contractual obligations, right to change supplier, within three weeks, without any switching related fees being charged (renewed; Article 12);
- 3) The right to conclude a contract with an aggregator, without the consent of the final customer's supplier (new; Article 13);
- 4) Basic contractual rights (renewed: Article 10);
- 5) Entitlement to a dynamic electricity contract, meaning an electricity supply contract between a supplier and a final customer that reflects the price at the spot market or at the day ahead market at intervals at least equal to the market settlement frequency (new; Article 11);
- 6) Consumers have access, free of charge to at least one certified price comparison tool (new; Article 14);
- 7) Frequent billing and billing information. Information in bills shall be correct, clear, concise and presented in a manner that facilitates comparison (reinstated, specified; Article 18);
- 8) Final consumers are entitled to generate, to store, consume and sell self-generated energy, without being subjected to disproportionately burdensome procedures and non-cost reflective charges (new; Article 15);
- 9) Ensuring the rights of Local energy communities to participate in the energy market as final consumers, generators, distribution system operators or aggregators (new; Article 16);
- 10) Entitlement to a smart meter, under fair and reasonable conditions (new; Article 21).
- 11) Right to out-of-court dispute settlement (updated: Article 26).





Some highlights

Concept of active consumer



Rights for active consumers

Entitlement dynamic price contract



Smart meter



Rights of local energy communities





What can we expect?

Status quo bias

Loss averse

Bounded rationality



Information paradigm

time-varying discounts





User friendly and high quality information

Information should be necessary and sufficient (Oehler & Wendt 2016).

Consumer trust: Transparency, accuracy, <u>clarity</u>, <u>verifiability and fit personal needs</u>

Education, disclosure standards

Smart meter with feedback tool





Independent price comparison tools







Key issues left

Proper market design and institutional design crucial for effective excercise consumer rights

- Delineation DSOs core and non-core tasks (CERRE 2016, Lavrijssen et al)
- How to regulate the network tariffs?
 - Fixed tariffs, capacity usage based tariffs, energy usage based, time of use tariffs, interruptible tariffs
 - Different cost and benefits
 - Future of network regulations?
- Procedural consumer empowerment; right of initiative (Lavrijssen 2016).





Observations

- Transparency of new roles and responsibilities;
- Enhancement of rights/empowerment all (active) consumers;
 - Abolishment of legal obstacles for active consumer participation in Smart Energy System;
- Proof of the pudding is eating it:
 - Long lasting political negotiation process;
 - MS have considerable leeway in designing markets and institutions;
 - Uncertainty regarding development transition and consumer behaviour;
 - Legislation may not be set in stone; flexibility for independent NRAs crucial



