



Padova 29 November 2024

Regulatory challenges for the electricity markets in a renewable-based energy system: the EU new market design

WHO WE ARE



Utilitalia represents approximately **400 companies** operating in public services related to water, environment, and energy (gas, electricity). In line with its founding values, the Federation's mission is to **enhance the specificities** that compose the association's framework by consistently synthesizing diverse perspectives.

The presence of its members across much of the national territory is an added value in terms of representation, upon which Utilitalia has built its operational paradigm, promoting opportunities for dialogue between different realities and implementing cross-sectoral tools to help improve service quality.

In this way, Utilitalia promotes the **industrial development** of public services, paving the way for efficient solutions that contribute to achieving **national and European goals** in terms of sustainability, circular economy, decarbonization, and energy efficiency.

104.169

Utilitalia National
Labor Agreement:
employees of
member companies



86% water
53% environment
35% gas
15% energy

Percentage of the
population served by
Utilitalia's member
companies



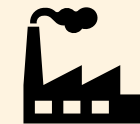
408

Member
Companies



€68.6 billion

Production value



€3.3 billion

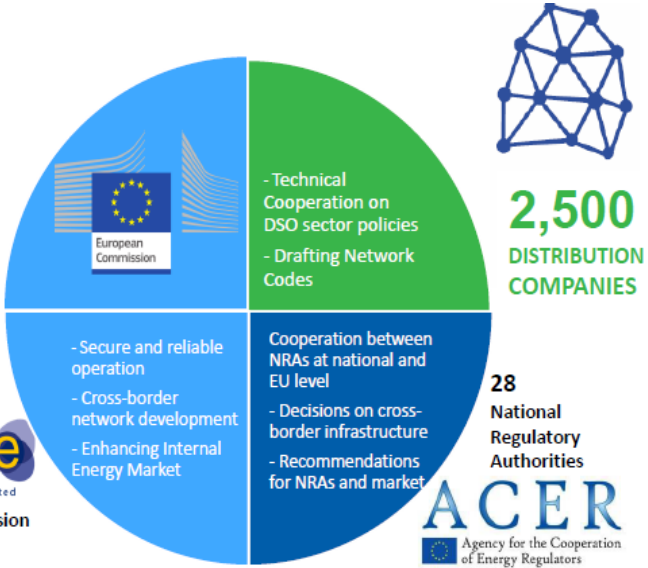
Profits



UTILITALIA in the energy policy scenario



- One voice for the electricity DSOs on technical matters
- An equal footing with TSOs on Network Codes notably when it comes to the drafting of **network codes**



UTILITALIA interacts with European and National stakeholders, regarding generation, trading, distribution and sales of electric energy, trading, distribution and sales of natural gas, district heating, RES, waste to energy, e-mobility, biomethane, hydrogen, energy efficiency and more

Agenda

- The crisis scenario before the EMD
- EMD: main pillars
- Some final remarks

The crisis scenario before the EMD

Price and geopolitical shocks



Energy crisis 2021-2022: high tensions in the international commodities market and geopolitical conflicts led to extremely high energy prices (from 2021 to 2022: + 294% wholesale gas prices and + 171% wholesale electricity prices in Italy)

National Government Remedies



Single Member States initially in charge to face crisis and extremely expensive energy bills for final customers, also relying on legislation against possible extra-profits and non-market measures

Energy companies demonisation



Very expensive energy bills and utilities revenues increase were considered as a proof of the fact that energy companies were responsible for the economic and social crisis

Back to reality



Bad economic performances of utilities (i.e. net profit reduction, lack of liquidity, increase of debit expenses) later demonstrated that energy utilities mainly were «victims» of the crisis at all

Finally EU



UE gas and power emergency acts were put in place as common remedies to face energy crisis

So what?



Lesson learnt: Member States alone are not able to face global energy prices crisis and require a EU coordinated intervention aimed at defining right remedies and safeguarding market organisation and integrity at the same time

EMD: main pillars

- ★ **Contracts for difference (CfD):** the EMD promotes the two-ways contracts for difference (or equivalent regimes), with participation on a voluntary basis, in order to assign public incentives for investments in new electricity generation plants using specific energy sources mentioned by the Regulation (wind, solar, geothermal tankless hydroelectric and nuclear). The CfDs will apply to contracts under direct support schemes for investments in new generation concluded from 17 July 2027, or, in the case of RES offshore generation of hybrid projects connected to two or more bidding zones, from 17 July 2029.
- ★ **Power Purchase Agreements (PPA):** Member States are asked to promote PPAs and to eliminate unjustified obstacles, disproportionate or discriminatory procedures or charges for potential participants. The main aim is to ensure price predictability and achieve the targets of the national energy plans. Member States shall also ensure that special remedies such as market price guarantee schemes, aimed at reducing the financial risks associated with non-payment by buyers under electricity purchase and sale agreements, are available and accessible for customers who face market entry barriers.
- ★ **Capacity market:** it is considered as a structural segment of the electricity market and no longer a transitory remedy only. Participation in the mechanism is temporary admitted for power plants in operation before 4 July 2019 with emissions exceeding the limits of 550 g CO₂/kWh and 350 kg CO₂/year per kWe installed. The exemptions are foreseen until 31 December 2028 and based on national objectives of non-fossil flexibility and on specific conditions that will have to be established by the EU Commission regarding the needs of adequacy.
- ★ **Price emergency declaration procedure:** the EMD Directive offers to the EU Council the possibility to declare a state of crisis in the event of exceptionally high electricity prices and to adopt consumer protection measures, but on the basis of exogenous factor requirements that must be verified in the market, such as very high average prices on the wholesale electricity markets and strong increases in retail electricity prices for a prolonged period of time.
- ★ **Remedies for final customers:** freedom of choice to purchase electricity from several suppliers (or more than one energy sharing agreement) at the same time. Right to have more than one metering and billing point related to the single connection point. Final customers equipped with a smart meter must have the possibility to conclude, upon request, a contract with a dynamic price of electricity and/or a fixed-term and fixed-price electricity supply contract, lasting at least one year, with any supplier serving more than 200.000 customers. Vulnerable customers and customers in conditions of energy poverty will have to be fully protected in electricity supply, through appropriate measures, including a ban on interruptions in supply or other equivalent actions.

Some final remarks

1



maintaining SMP vs separate pools ✓□

2



one too many long term contract approach?□

3



capacity support made structural ✓□

4



customer support thr jury is out there?

Thanks

BACKUP

EMD: main targets

- The strengthening of the internal energy market and the achievement of the objectives of the climate and energy transition are both relevant in the EU energy policy.
- The consolidation and the integration of the energy system is understood as the planning and operation of the energy system as a whole, i.e. its multiple energy carriers, infrastructures and consumption sectors, through the creation of stronger connections between these elements, in mutual synergy and with the support of digitalisation, with the aim of offering safe, affordable, reliable and sustainable energy.
- Against the backdrop of the energy crisis, the current structure of the electricity market has revealed serious shortcomings and unexpected consequences related to the level high and the volatility of fossil fuel prices in short-term markets of electricity, which expose residential customers and businesses to strong price spikes and to the related repercussions on electricity bills.
- The acceleration of the diffusion of renewable energy and clean flexible technologies is the most sustainable and cost-effective way to structurally reduce the demand for fossil fuels for generation electricity and allow the direct consumption of electricity, through electrification of energy demand and integration of the energy system. In Due to low operating costs, renewable sources can have an influence positive on electricity prices across the Union and reduce consumption of fossil fuels.
- Is appropriate to enforce the structure of the electricity market so that the benefits deriving from the growing diffusion of renewable energy and the energy transition in general are aimed at consumers, including the most vulnerable ones, ultimately protecting them from energy crises and avoiding the risk that other civilian customers will fall into energy poverty.

EMD: contracts for difference (CfD)

- The EMD promotes the two-ways contracts for difference (or equivalent regimes), with participation on a voluntary basis, in order to directly support public incentives for investments in new electricity generation plants starting from specific energy sources mentioned by the Regulation (wind energy, solar energy, geothermal energy, tankless hydroelectric energy and nuclear energy).
- The CfD in question will apply to contracts under direct price support schemes for investments in new generation concluded from 17 July 2027, or, in the case of RES offshore generation of hybrid offshore projects connected to two or more bidding zones, from 17 July 2029.
- The remedy is designed to handle price volatility and to improve the availability of low-cost renewable energy sources: it consists in long-term contracts (i.e. 15 years) stipulated between RES producer and a government-owned entity in charge for RES incentives. In the “two-way” system, they are assigned through competitive auctions and are based on a difference between the market price and an “strike price” agreed in the tender itself.
- In detail, the producers who want to take part in the auctions, submit offers declaring the price at which they would sell the future energy produced to the national system. The winners are entitled to a predefined remuneration, the so-called strike price, guaranteed for a long period of time.
- During the delivery period, If electricity wholesale price is lower than the strike price, the RES plant will receive an extra-payment equal to the difference between the two prices. If higher the RES plant will have to return the relative difference to the Government. This refund can end up directly on consumers energy bills, that also finance the basic charge to cover the strike price on which the incentivization model is based.

EMD: Power Purchase Agreements (PPA)

- Special attention is paid by the EMD Regulation to power purchase agreements (PPAs), which Member States are called upon to promote, on a voluntary basis, also by eliminating unjustified obstacles, disproportionate or discriminatory procedures or charges for potential participants.
- The main aim is to ensure price predictability and achieve the objectives established in the respective integrated National energy plans. Member States shall also ensure, in a coordinated manner, that special remedies such as market price guarantee schemes, aimed at reducing the financial risks associated with non-payment by buyers under electricity purchase and sale agreements, are available and accessible for customers who face market entry barriers to reach such agreements.
- PPAs are long-term power purchase agreements between a producer and a customer, usually a utility, a public entity or a company. Electricity can be supplied physically by a merchant line, by a public grid or virtually. Contracts can last from 5 to over 20 years, during which the buyer can generally count on a pre-negotiated fixed price: in this way it is possible to reduce the volume and price risks normally involving the market.

EMD: capacity market

- The EMD Regulation considers capacity market as a structural segment of the electricity market and no longer a transitory remedy only.
- The capacity market is a mechanism by which the system procures capacity through long-term supply contracts awarded through competitive auctions. Operators owning production units who, for the capacity selected following the auction, have the obligation to offer capacity on the energy and services markets, the right to receive a fixed annual bonus and the obligation to return the difference, if positive, between the price of electricity realized on the energy and services markets and an exercise price defined by the NRA.
- Participation in the mechanism is temporary admitted for power plants in operation before 4 July 2019 with emissions exceeding the limits of 550 g CO₂/kWh and 350 kg CO₂/year per kW_e installed: the exemptions are foreseen until 31 December 2028 and are based on national objectives of non-fossil flexibility and on specific conditions that will have to be established by the EU Commission regarding the needs of adequacy of the relevant electricity market.
- Member States using the capacity market will also be able to consider whether to make the necessary adjustments to promote the participation of non-fossil flexibility sources, such as demand response and energy storage.
- Italian legislator and NRA have always considered this tool as basically important to assure adequacy and security for the National energy system: now the relevance of this remedy is increased in terms of accessibility and potential growth.

EMD: price emergency declaration procedure

- The EMD Directive offers to the EU Council the possibility to declare a state of crisis in the event of exceptionally high electricity prices and to adopt consumer protection measures, but only on the basis of exogenous factor requirements that must be verified in the market.
- Specifically, the Council may, by means of an implementing decision on a proposal from the Commission, declare an electricity price crisis at regional or EU level if the following conditions are met:
 - a) very high average prices on the wholesale electricity markets, equal to at least two and a half times the average price in the previous five years, as well as equal to at least 180 €/MWh, and expected, according to forecasts, to continue for at least six months; the calculation of the average price over the previous five years does not take into account the periods in which an electricity price crisis was declared at regional or Union level;
 - b) strong increases in retail electricity prices - around 70% - which are expected, according to forecasts, to last for at least three months.
- The enforcement decision specifies its period of validity, which can last up to one year. This period can be extended for consecutive periods (up to a maximum of one year).

EMD: remedies for final customers

- The EMD Directive introduces some rules for the freedom of choice of suppliers, in order to ensure that all customers are free to purchase electricity from suppliers they choose, as well as to have more than one electricity supply contract (or more of an energy sharing agreement) at the same time. For this aim, where technically possible, intelligent measurement systems can be used. It is also clarified that customers have the right to have more than one metering and billing point covered by the single connection point.
- Member States will have to provide so that the National regulatory framework allows suppliers to offer fixed-term, fixed-price and dynamic-price electricity supply contracts. Specifically, final customers equipped with a smart meter must have the possibility to conclude, upon request, a contract with a dynamic price of electricity and/or a fixed-term and fixed-price electricity supply contract, lasting of at least one year, with at least one supplier and with any supplier with more than 200.000 customers.
- Vulnerable customers and customers in conditions of energy poverty, will have to be fully protected from interruptions in electricity supply, through the adoption of appropriate measures, including a ban on interruptions in supply or other equivalent actions.