

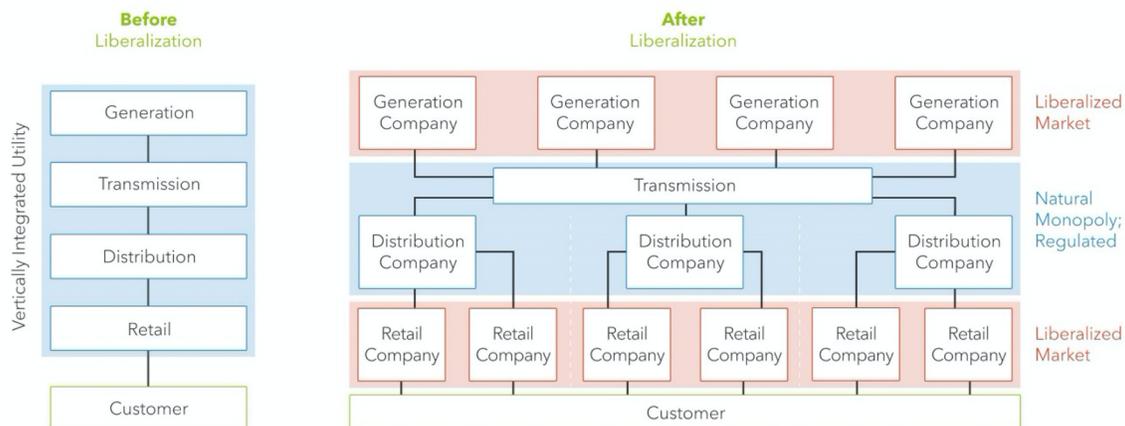
EFET Insight into Exchange-based and Over the Counter Energy Trading

How is the European energy market structured?

Over the past 30 years the European electricity and gas sectors have been progressively liberalised. This means they have moved from:

- A position in which the same business often owned and operated the assets which produced gas or electricity, owned and operated the pipelines or wires to transport the energy and then supplied the energy to consumers; to
- A position in which production and supply businesses and transportation or transmission businesses must by law be separate (or *unbundled* in the jargon).

The process of liberalisation of energy markets is illustrated in the diagram below.



Source: [Next-Kraftwerke](#), *Liberalisation of Energy Markets*.

Under the European model, all producers, suppliers and consumers of energy are entitled to access electricity wires and gas pipelines on objective, transparent and non-discriminatory terms. The buying and selling of energy can then be carried out in a competitive market environment.

Why is energy traded?

In an integrated system there was little need or opportunity for power and gas trading. The same company did everything in a given country or region of a country. The integration typically came at a high cost, while quality of service to consumers was frequently poor.

Following the introduction of unbundling and open access to infrastructure, competition flourished in most countries. Energy companies could compete on each other's formerly monopoly territory and new entrants had opportunities to develop their businesses. As a consequence, large numbers of companies started buying and selling energy – to cover variations in their own production profiles, supply commitments or consumption needs. A wholesale market was born.

As well as buying and selling energy based on what they produce, supply or consume, wholesale markets allow companies to trade in order to hedge risks. In simple terms, hedging allows a company to sell or buy its energy in a way that reduces its exposure to changes in the wholesale market price.

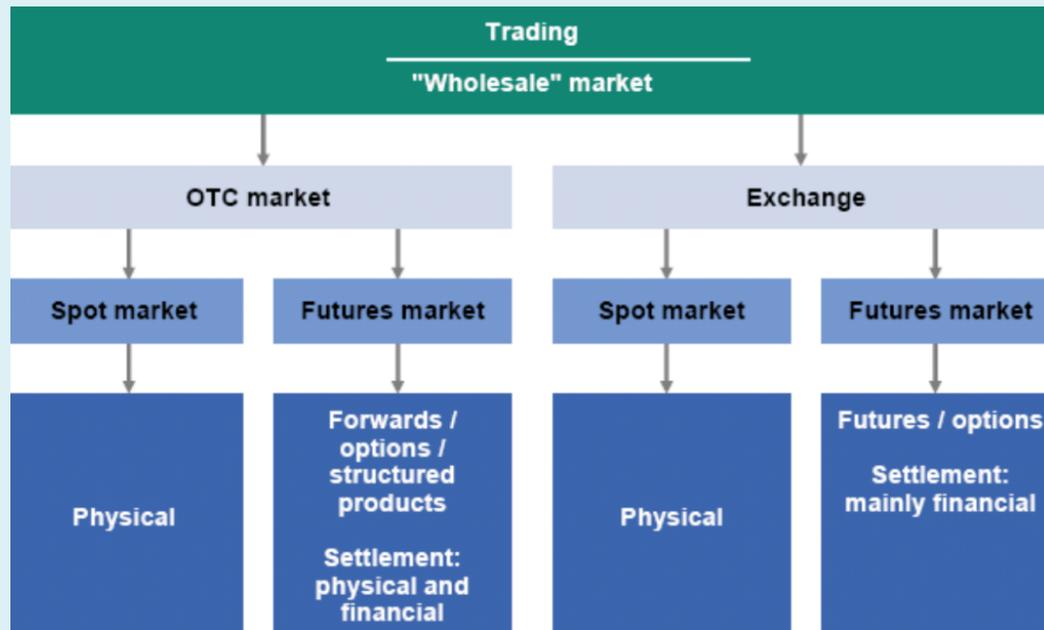
Where is energy traded?

If lots of companies need to buy and sell energy, it follows that there are places where demand (buy) and supply (sell) meet. Two broad options exist, as shown in the diagram below. Those two options are:

→ **Over the Counter (OTC) markets**

→ **Trading via an Exchange**

These two trading options are the focus of this insight.



Source: [ECORYS](#)

What is an energy exchange and why do people use them?

An energy exchange, as is the case with a stock exchange, provides buyers and sellers with an anonymous and secure marketplace.

In simple terms, an exchange works by:

- Collecting bids from potential buyers and offers or asking prices from potential sellers through an electronic platform (a process known as “acting as a Central Counterparty”).
- Establishing a clearing price at which supply matches demand for a given period.
- Automatically selecting those offers at or below the clearing price (i.e. those who have been successful in the matching process) and turning those into a contract.

The more bids and offers, the more reliable is the price (and conversely the fewer bids and offers the less reliable is the price). This is termed liquidity. Traders are likely to be attracted by an exchange because, when it flourishes, it will represent a deep pool of liquidity. However, OTC platforms – described below – may also succeed in attracting many participants and developing liquidity.

The prices which are calculated on exchanges are used in other areas of the energy sector. For example they may become the reference price for a renewable support scheme, an energy future (see the next section) or a long-term contract. The price signals important information about the value that production sources increasing their output of energy, or consumers reducing their demand for energy, could gain from participating in the market. So robust reference prices – which may also be published based on OTC market reports - are extremely important to the entire energy system.

What is bought and sold via an energy exchange?

Energy exchanges typically specialise in trading spot or derivative contracts.

- A spot contract is normally a contract involving an obligation to make a physical delivery of energy on the following day or the same day.
- A derivative contract may be a contract to pay a set price in the future or to create an option to pay a set price in the future. A derivative contract essentially creates only financial rights and obligations for the seller and buyer. For forward trading, please see our [Insight into Forward Trading in Wholesale Electricity Markets](#).

What is Over the Counter trading and why do people use it?

The alternative to trading via an exchange is OTC trading. OTC electricity and gas contracts involve a direct relationship between a buyer and a seller. Unlike exchange based transactions, agreed prices and volumes are only known to the parties who have agreed a contract (and to the regulators to whom transactions are reported). However, the existence of bids and offers and their price levels are usually visible via a broker screen before a contract is concluded.

Most spot and short duration OTC transactions are arranged for the buyer and seller by a broker – which charges a brokerage or execution fee. Transactions themselves occur on trading platforms online or through the broker.

OTC trading is commonly used in Europe and represents the biggest volume of electricity market transactions in many countries in Europe. This may be explained by:

- The relatively lower fees for brokerage services relative to exchange based trading.
- The flexibility which OTC trading provides to sellers and buyers to strike tailor-made delivery schedules.
- More flexible credit and payment arrangements.

What is bought and sold?

Like exchange based transactions OTC contracts can be concluded spot or forward. The greatest volumes are mostly related to physical delivery.

- Contracts for spot or forward physical delivery are normally based on the EFET Standard Master Agreement (see [EFET Insight into the EFET Master Agreements](#)) which acts as a template.
- If contracting parties agree on purely financial settlement of a bilateral forward transaction, they are likely to use an International Swaps and Derivates Association (ISDA) Master Agreement as a template.

Why keep both OTC and exchange based trading?

There are advantages to both OTC and exchange based trading. While exchanges offer convenience, reduced credit risk and (if successful) guaranteed liquidity, OTC trading through brokers offers a good alternative. It brings potentially lower costs, more flexible credit arrangements, and scope for tailor-made deals.

Importantly, competition among trading venues helps make the operation of wholesale power and gas markets more efficient and thereby benefits consumers of energy. Essentially, both exchanges and brokers are seeking to attract as many customers as possible and therefore will try to offer the best prices and products to suit various market participants' needs.



In summary

- OTC and exchange-based trading are complementary and essential for the sake of competition, liquidity and the overall efficient functioning of European wholesale energy markets.
- Market participants appreciate the guaranteed liquidity, elimination of direct counterparty risk and the simplicity normally afforded by exchange based contracts.
- Competition among trading venues, especially between brokers and energy exchanges, encourages innovation, helps lower costs, and allows for flexibility in risk management.

For more information, feel free to contact us at secretariat@efet.org.

If you would like to learn more, check our Energy Markets Online Training Program at <https://www.efet.org/home/academy>.