

*National Electricity Regulatory Commission of Ukraine*

## **Wholesale Electricity Market of Ukraine**

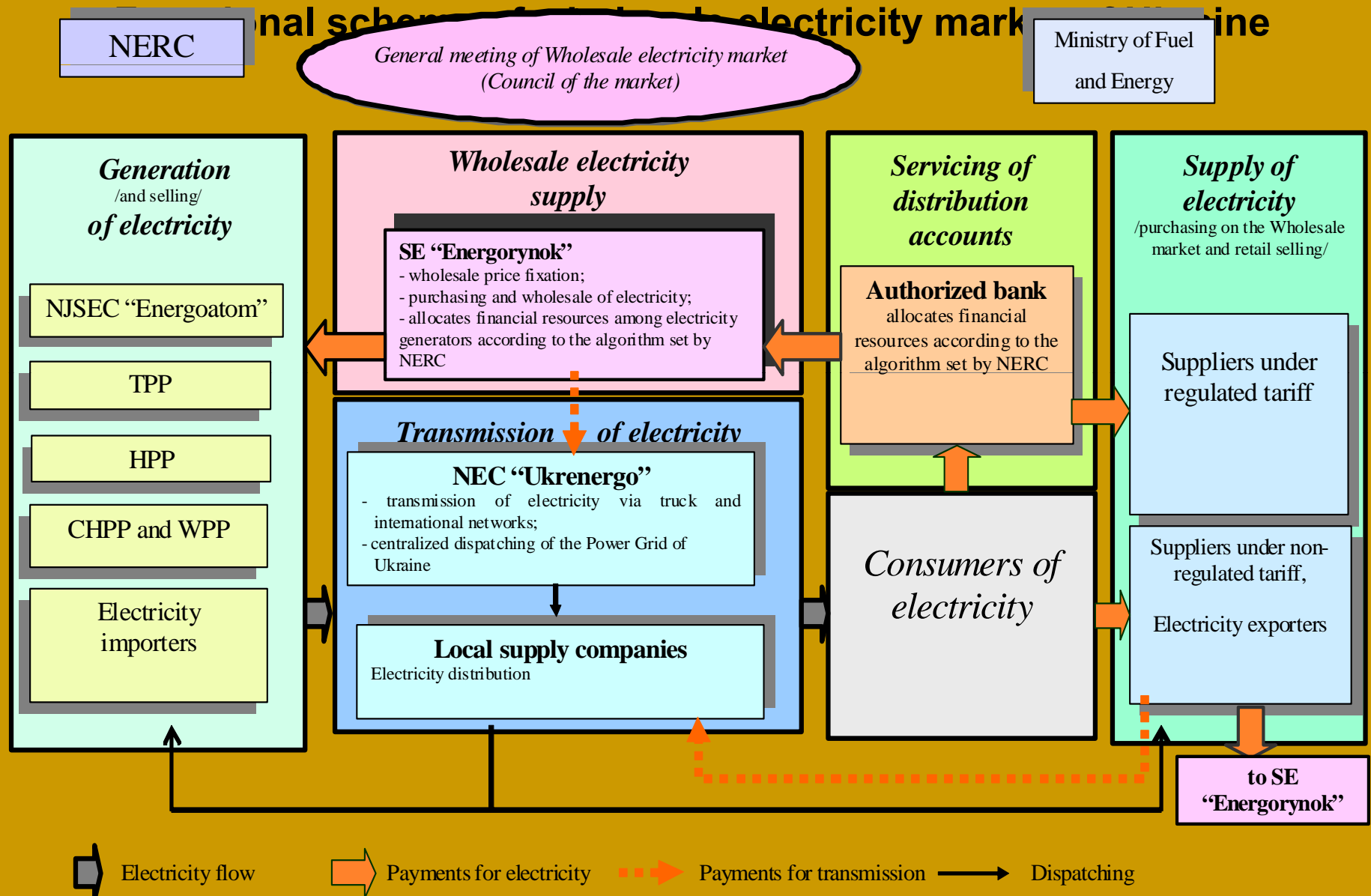
From 1996, after the multilateral Agreement was signed, the wholesale electricity market of Ukraine functions.

Adoption in 1997 of the Law on Electricity, on the legislative level fixed the model of the wholesale market – Single Buyer/Seller of electricity, and also obliged all generators (except for small ones, with installed capacity less than 20 MW) to sell generated electricity to the wholesale supplier, and all energy supply companies to buy electricity from the wholesale supplier at the common wholesale market price.

Functions of the wholesale supplier of energy are performed by the State enterprise Energorynok.

Any subject of entrepreneurial activities licensed by NERC to carry out certain type of activities has the right to become a participant of the wholesale electricity market by signing a multilateral agreement and a bilateral agreement on sale and purchase of electricity with the wholesale supplier.

# Functional scheme of electricity market of Ukraine



**As of today, in the wholesale market the following participants carry out activities:**

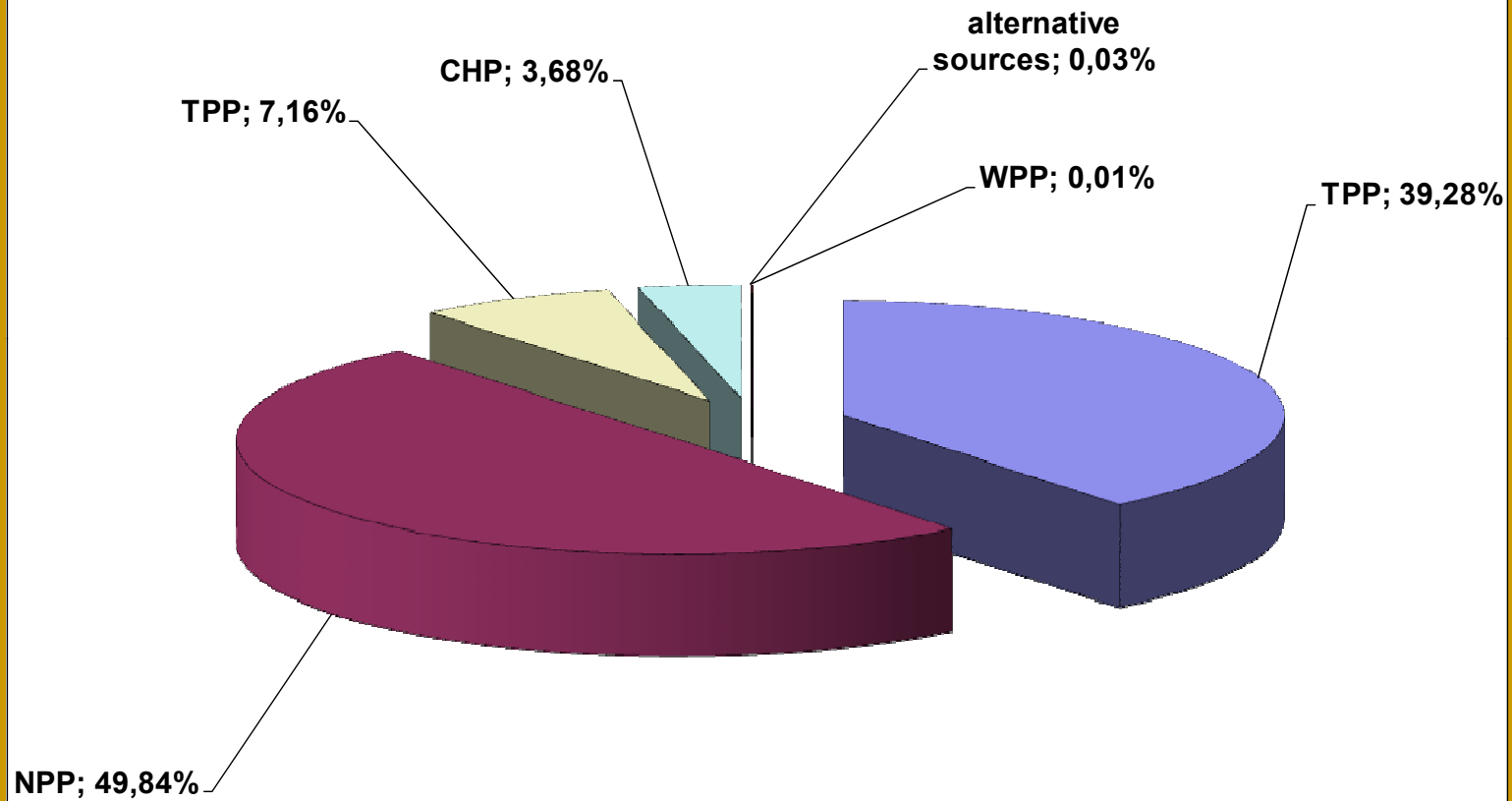
generators:

- Generating company, which includes 4 nuclear power plants, 1 hydro power plant, and 1 pump storage power plant;
- Hydro generating company, which includes 7 hydro power plants и 1 pump storage power plant;
- 5 generating companies, which include 14 thermal power plants and 1 hydro power plant;
- 28 combined heat and power plants;
- 1 CCGT plant;
- 4 wind power plants.

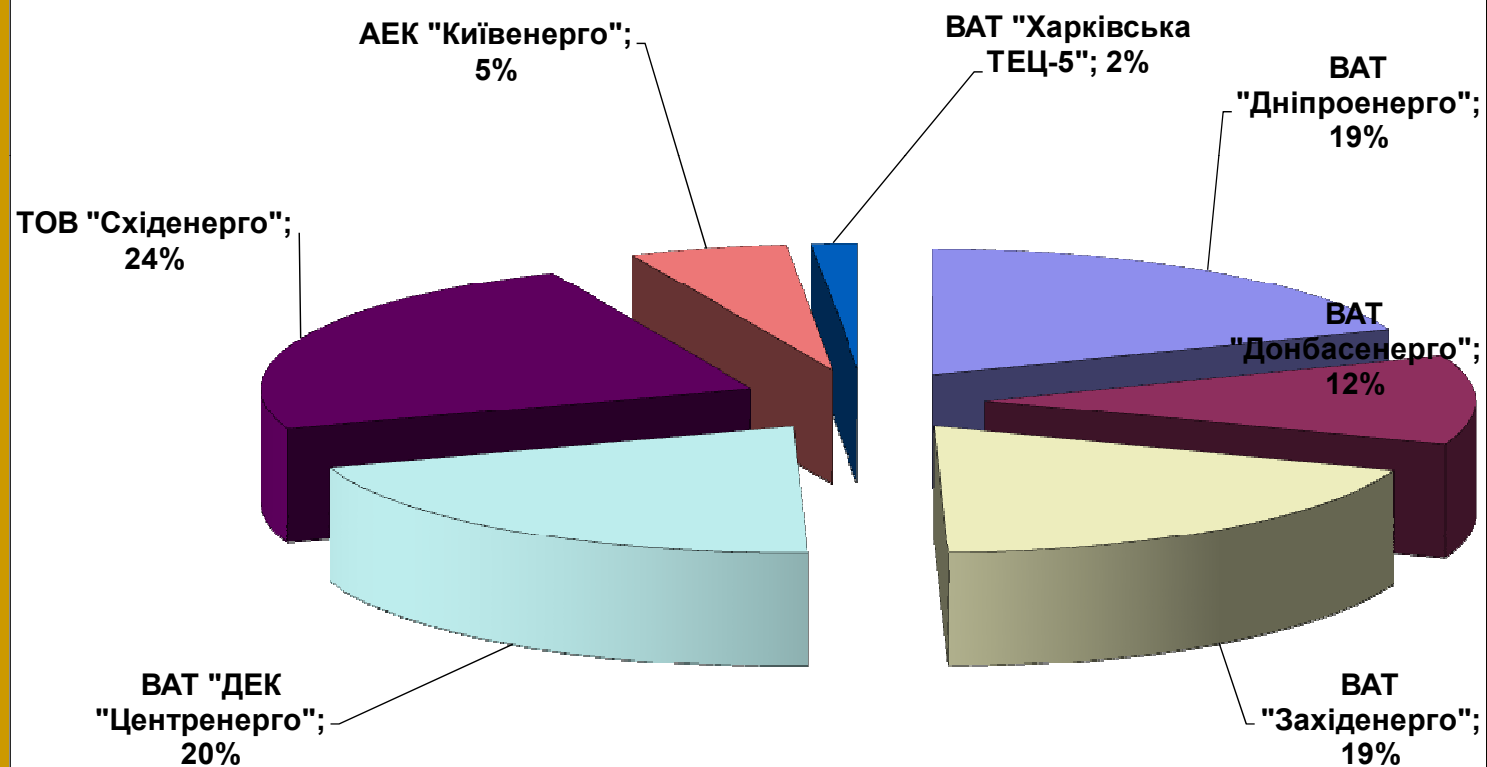
suppliers

- 36 suppliers at the regulated tariff, including several specialized companies that supply electricity for the railroads and to the coal industry, 27 of them are Oblenergo (regional supply companies);
- About 70 suppliers at the non-regulated tariff, including traders and large industrial consumers;
- 1 supplier that buys electricity in the wholesale market for further export.

## Structure of sale of electricity to the wholesale market by generators in 2009



## Structure of sale of electricity by generators who worked with price bids in 2009



## **An integral part of the Agreement between participants of the wholesale market are Wholesale Market Rules, which determine:**

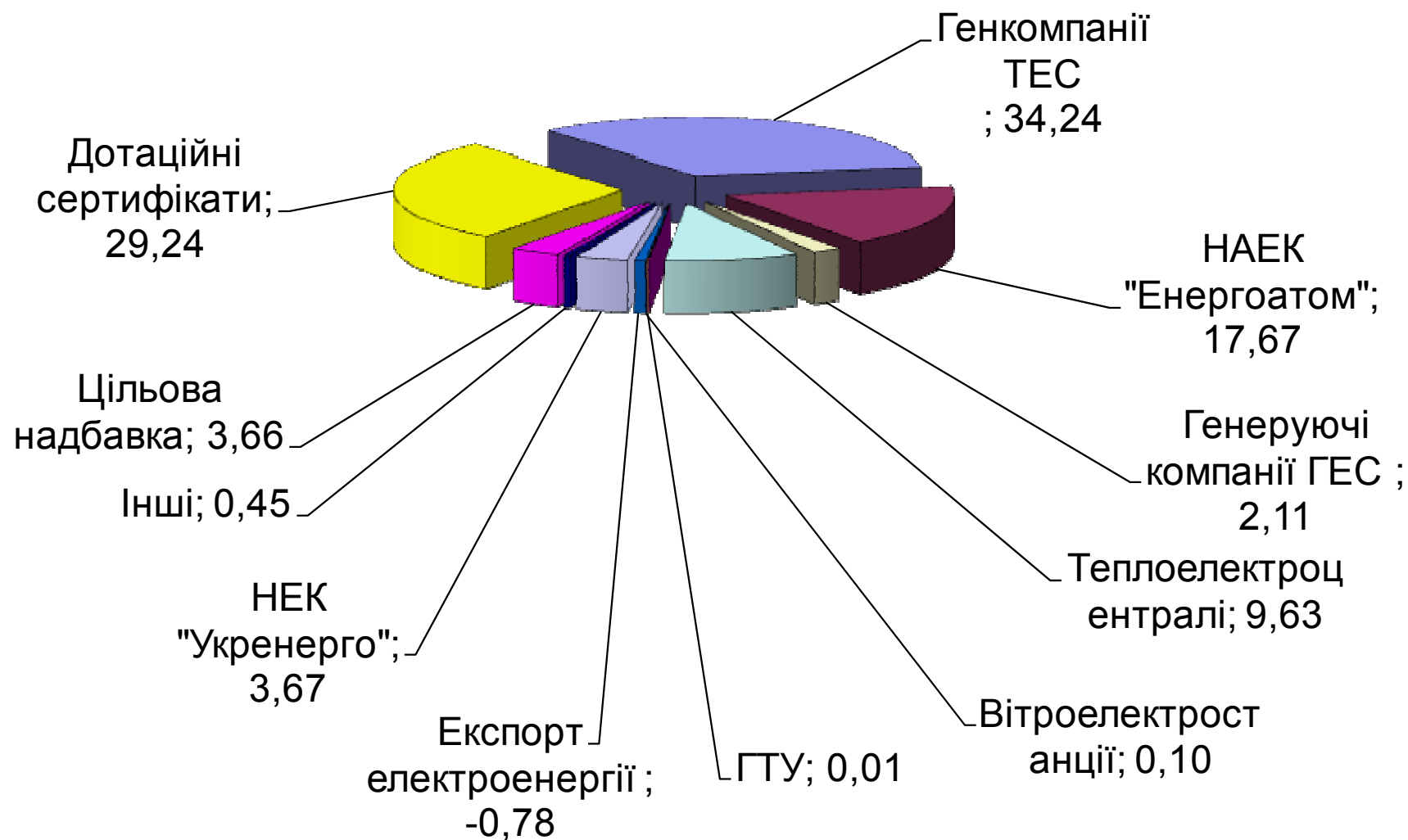
- The wholesale market functioning mechanism;
- The procedure for allocation of load between generating sources;
- Pricing rules for electricity for generators that work in competitive environment at price bids;
- The wholesale market price, at which suppliers buy electricity in the wholesale market.

**Wholesale market price for electricity is formed on an hourly basis and is determined as weighted average, based on the following values:**

- Cost of purchase of electricity from all generators that sell electricity to the wholesale market;
- Cost of imported electricity in the wholesale market for the external exchanges operator;
- Cost of purchase of electricity in the wholesale market by the external exchanges operator for further export
- Costs of dispatch and maintenance of main and interstate power networks;
- Costs of ensuring functioning of the wholesale supplier;
- Volume of subsidies to compensate costs related to supply of electricity to preferential categories of consumers approved by NERC;
- Volume of fees in the form of a special mark up to the current tariff for electricity and heat;
- Volume of investments for construction, reconstruction and upgrading of energy equipment of generators, for funding of development of non-traditional sources of electricity.



## Structure of the actual wholesale market price in 2009, %



**Generators that sell electricity to the wholesale market are divided in the following categories:**

- Generators that work in competitive environment at price bids – energy generating enterprises of thermal power plants and also other generators according to relevant decisions of the Wholesale Market Board. Five energy generating companies work with price bids TPP: JSC “Dneproenergo”, JSC “Donbasenergo”, JSC “Zapadenergo”, Limited Liability Company “Vostokenergo”, JSC «GEC “Tsentrenergo”. In April 2003, SE “Kharkov CHP – 5” joined the group of generators that work with price bids. JSC “Kievenergo” (Kiev CHP-5 and CHP-6) started to work with price bids from March 2006;
- Generators that do not work with price bids – energy generating enterprises of nuclear, hydro generating and pump storage power plants, CHPs, wind power plants, cogeneration, stream and gas and gas turbine units that sell electricity to the wholesale market at tariffs approved by NERC.