

# ***BALTIC ELECTRICITY MARKET MINI-FORA***

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# ESTABLISHMENT OF ELECTRICITY MARKET IN LITHUANIA

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Law on reorganization of Lietuvos energija AB	May 18, 2000
1 <sup>st</sup> edition of Law on electricity	July 19, 2000
Trading Rules of Electricity	December 18, 2001
Beginning of trading electricity under market conditions in wholesale electricity market	January 1, 2002
Auction Trading Rules	April 18, 2003
2 <sup>nd</sup> edition of Law on electricity	June 1, 2004
Beginning of full-scale hourly trading	January 1, 2007

# ELECTRICITY MARKET REGULATION AND LEGAL BASIS

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The following institutions regulate the Electricity Market in Lithuania:

- Government
- Ministry of Economy
- National Control Commission for Prices and Energy

# Government role for electricity market

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The definition of public service obligation

The licensing rules

The conditions for import electricity

Law on electricity

# Ministry of Economy role for electricity market

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Trading rules of electricity

Trading rules in auctions

Public service obligations rules

(Extent of the State support or the Market limitations applied in order to protect the public interests)

etc...

# The National Control Commission for Prices and Energy role for electricity market

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Prices charged by the Market Players having a pre-dominant position in the market

Price setting for Non-eligible Customers

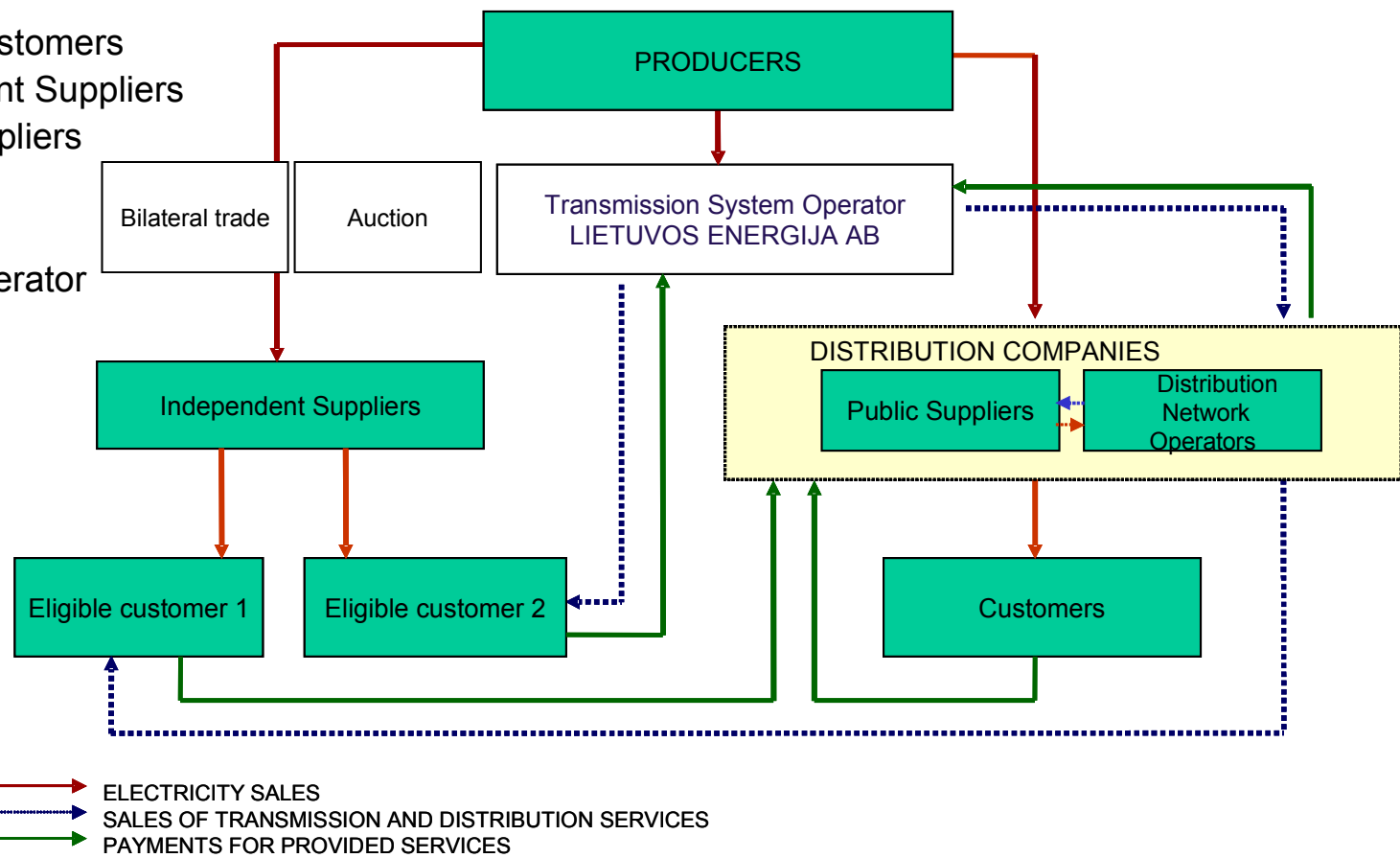
Price setting for services provided by natural monopolies

# Activities and actors of electricity market

All payers have to obtain licenses for performing particular activity in the Lithuanian electricity market.

The Actors:

- Eligible Customers
- Independent Suppliers
- Public Suppliers
- Producers
- TSO
- Market Operator



# Electricity market

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The trade of electricity can be performed by:

Bilateral contracts,

By auction,

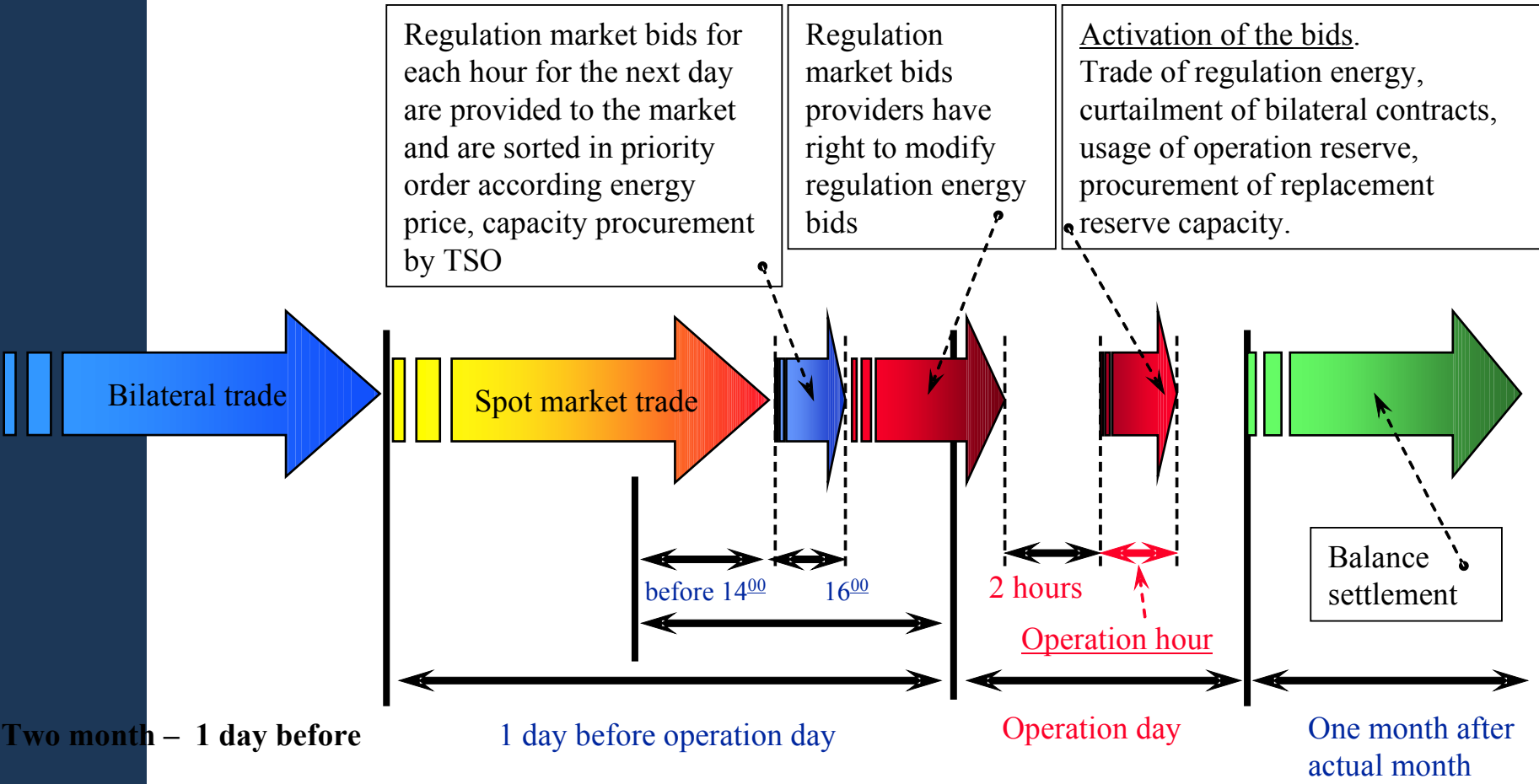
Centralized trade as the Public Service Obligation.

## BEFORE FULL- SCALE HOURLY TRADING:

The auction is organized for Producers only as the quantities of electricity in transactions with suppliers are defined on a monthly basis. Only transactions with producers are based on hourly basis. After implementing commercial accounting system on consumption side the auction of additional energy will be open for other market participants as public suppliers and independent suppliers.

# Electricity market

## Timing of the trade



## Bilateral trade

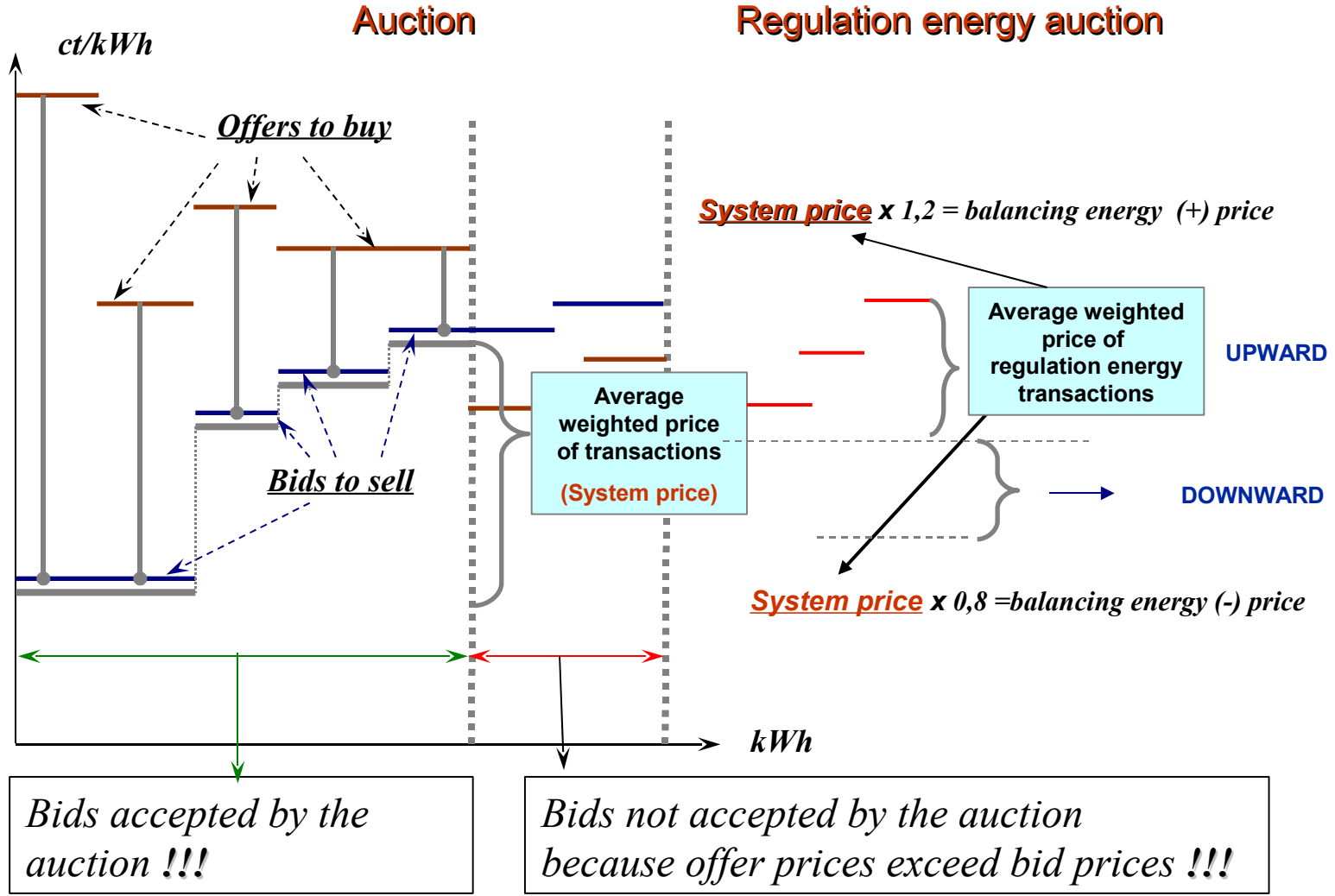
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Direct contracts between producers and suppliers

Presentation of information to market operator

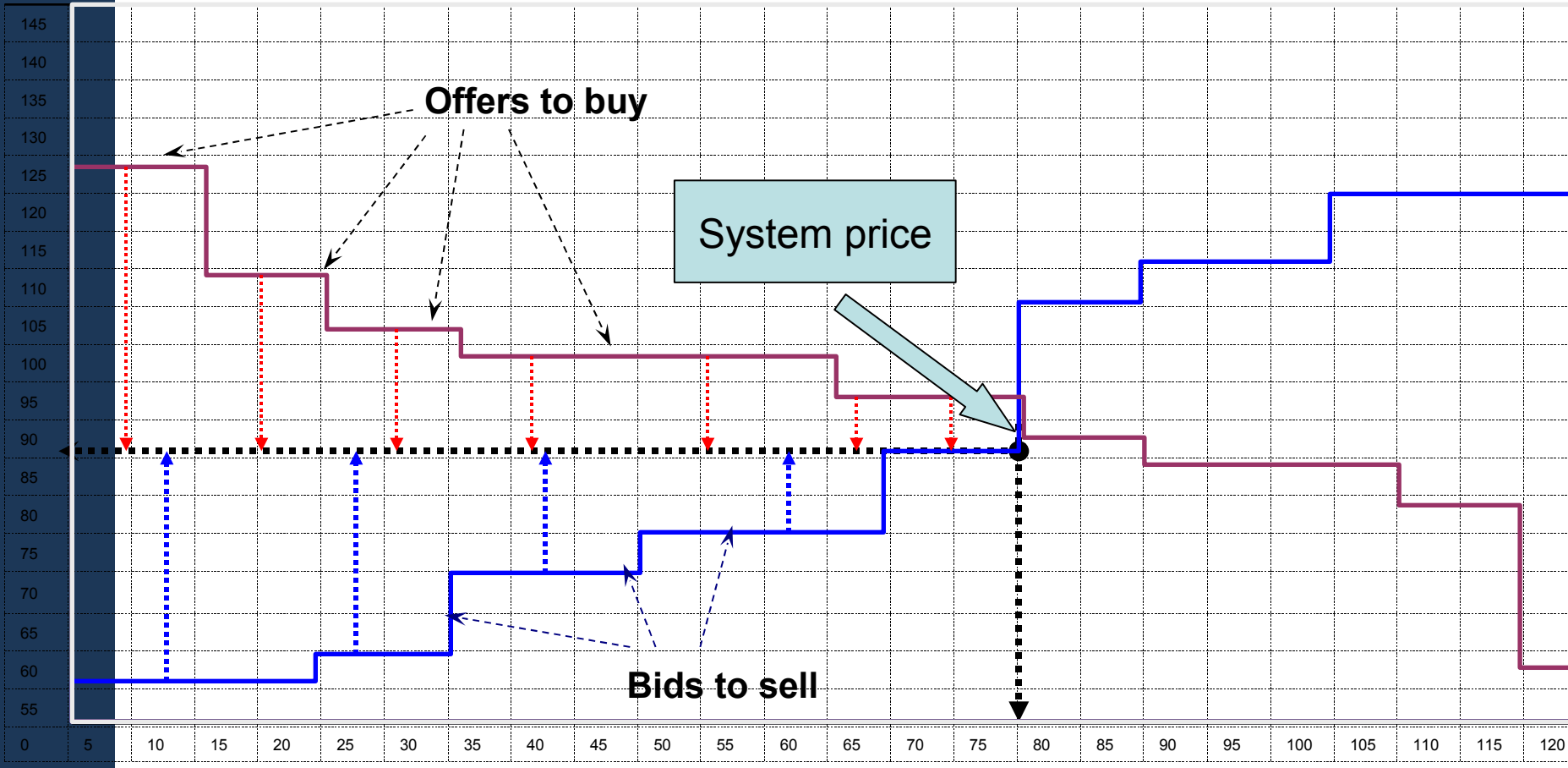
Limitation of bilateral trade - 70% of all traded electricity.

# Electricity market



# Spot system in Nordic market

€/MWh

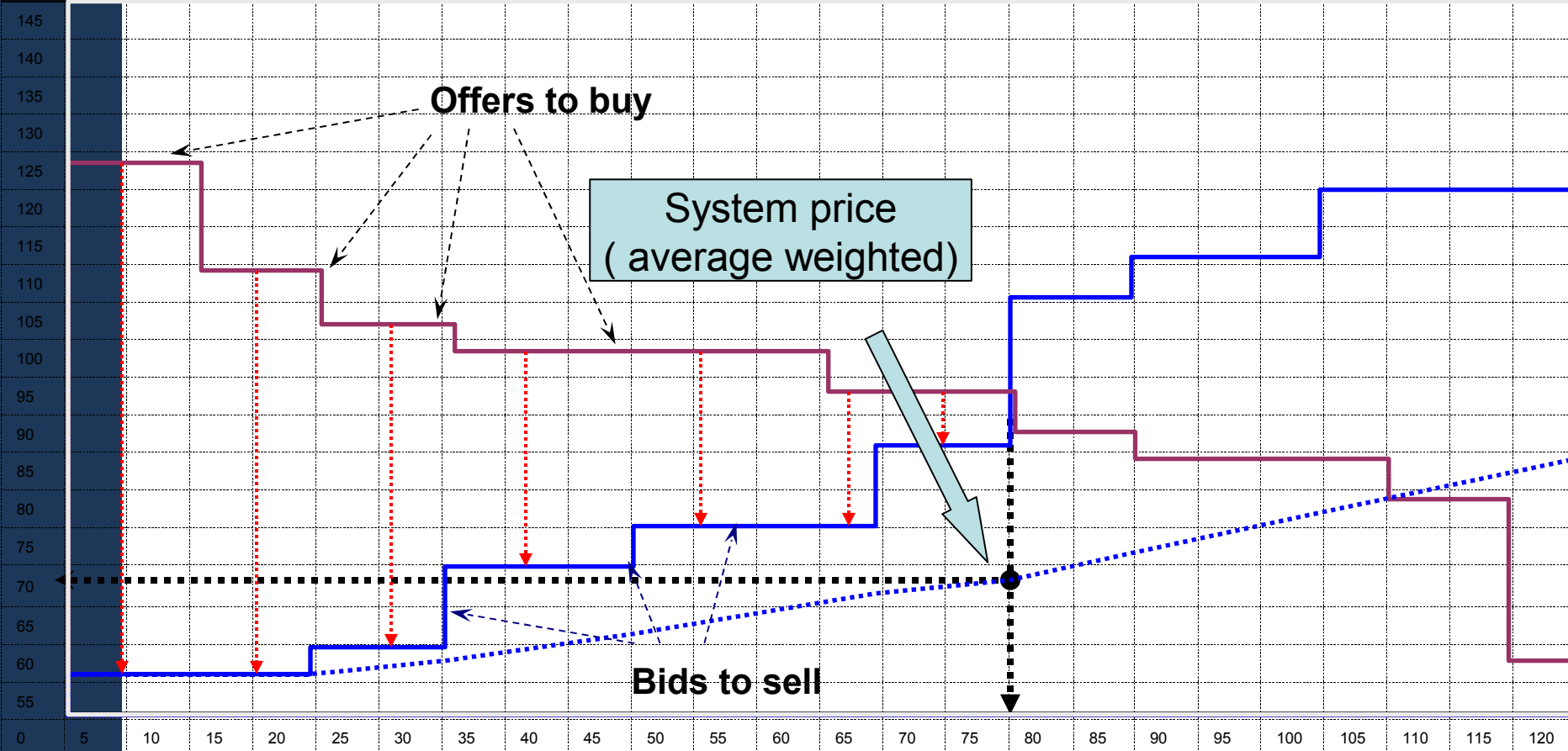


Advantages: simple, one price for sellers and buyers, often used in other markets as point of reference.

MWh

# Auction system in Lithuania

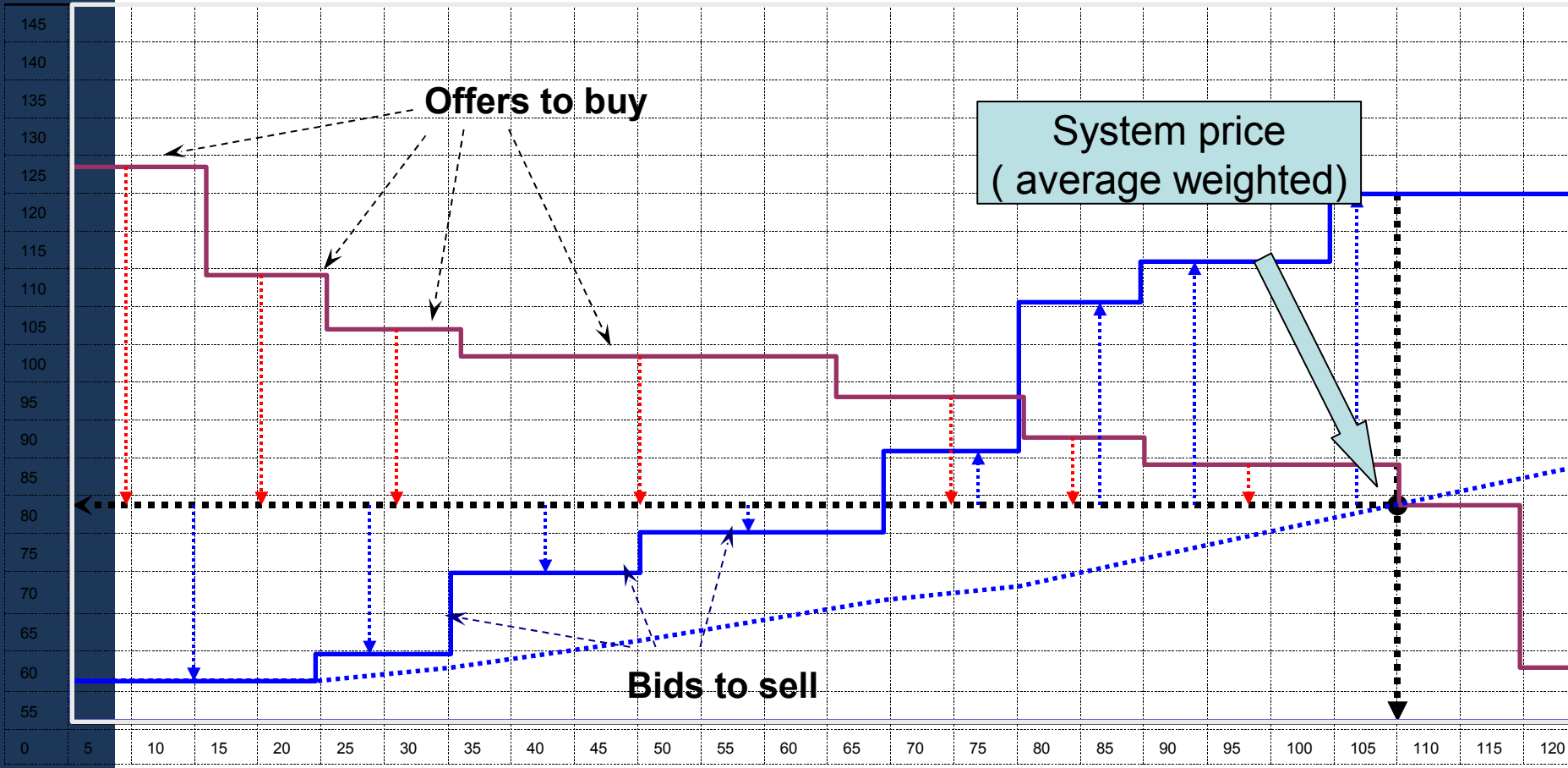
€/MWh



Advantages: conditionally low system price, the mechanism for regulation of dominating market participants. <sup>MWh</sup>

# Next step

€/MWh



Advantages: conditionally low system price, the mechanism for regulation of dominating market participants, one price for bidders and offerors.

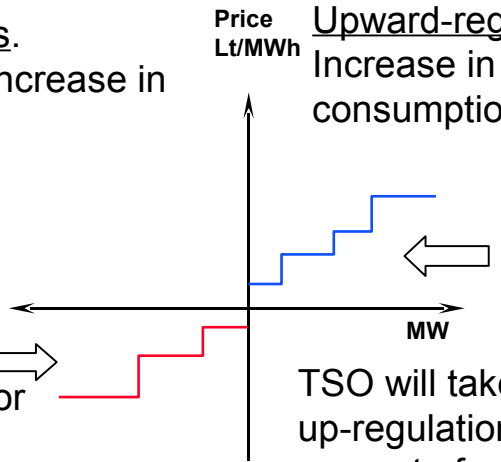
# Regulation energy auction

Downward-regulation bids.  
Reduction in generation/increase in consumption

Upward-regulation bids.  
Increase in generation/reduction in consumption

TSO will take the most expensive down-regulation for the certain amount of power

TSO will take the cheapest up-regulation for the certain amount of power



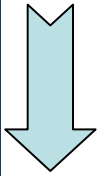
**TSO sort bids for each hour in priority order, according energy price. If, during the real time of operation, there is need to increase generation, the TSO selects a unit that corresponds to the lowest price on the upward regulation list. If there is need to decrease generation during the real time operation the TSO selects a unit that corresponds to the highest price on the downward regulation list.**

Trading day: <yyyy-mm-dd>  
Trading hour: <hh-hh> Current time: <yyyy-mm-dd hh:mm:ss>

Participant	Regulation capacity	Regulation energy price	Specification of bid	Capacity amount for payment	Capacity price
	MW	Lt/MWh		MW	Lt/MW
VE	5	120.00	N		8.44
KE	15	80.00	N		8.45
ME	10	79.00	N	10	8.45
VE	10	56.00	N	10	8.45
ME	5	55.80	N	5	8.45
KE	10	55.63	N	10	8.45
LE	5	55.60	L	5	8.45
VE	10	52.00	N		
KE	20	50.00	L		
ME	15	49.00	N		
VE	30	42.00	L		
LE	10	40.00	L		

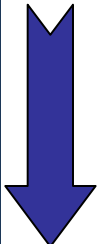
# SYSTEM OPERATION – BALANCING ACTIVITIES OF THE TSO

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## **BEFORE THE DELIVERY DAY:**

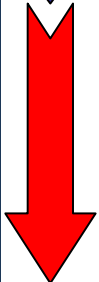
Calculates transmission capacity limits, losses and forecasts consumption



## **BEFORE OPERATING HOUR :**

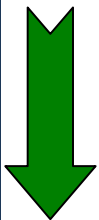
Receives information on the volumes of fixed transactions

Receives regulation energy bids



## **DURING OPERATING HOUR :**

Monitors national balance, regulates if needed and registers regulating energy transactions



## **AFTER OPERATING HOUR:**

Collects measurement data and balance information

Calculates the national imbalance for each hour

## Electricity trade issues

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The development of common Baltic electricity market

Dominating market players in all three Baltic countries

The dependence of the Russian suppliers in Ignalina NPP maintenance period

Transit compensation mechanism

Common balancing market, the barriers for reserve capacity market development

Tariffication system harmonization in the internal markets of Baltic states

Transparency of market information

Closure of INPP without alternative way for ensuring security of supply

Common strategy of EU regarding regional electricity sector development