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# Price Based Demand Response Russian Experience

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# Economic Demand Response

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## Traditional approach

The manufacturer acts as the party determining the price of electricity.

The generator produces as required, the consumer pays the invoice.

## Demand response

Elasticity of demand increases.

Consumers refuse to consume and pay for the production of the least efficient generators.

The consumer is ready to change consumption depending on the price, the production volume of generator depends on the consumer.

*Demand response is an effective tool to reduce prices in the electric power market during peak hours, when less efficient generating facilities are attracted to meet electricity demand.*

# Price based reduction in consumption

Since 2016 in Russia the first stage is introduced of consumer demand response on the wholesale electric power (capacity) market

## On capacity market

The mechanism that provides the presence of consumers who can, upon request, reduce their electricity consumption by a certain amount, results in a decrease in demand for competitive power take-off

## On electric power market

Price based decrease in the volume of purchases on the electric power market is made by double recalculation on the DAM and the formation of a new trading schedule, taking into account some certain conditions

When forming the trading schedule, taking into account the unloading of price based reduction in consumption, the DAM prices for all buyers decrease.

# The main characteristics of the mechanism of price based consumption in the wholesale electricity and capacity market

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- Voluntary participation
- Unloading occurs during a period of high prices on electric power market
- Efficiency is determined by double recalculation of day-ahead market (DAM) with and without unloading.

If there is an economic effect in the form of a decrease in the DAM price by at least 1%, the consumer will receive a trading schedule with account of unloading by the amount stated in competitive power take-off

# Price Based Demand Response On Retail Electric Power Market

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We are currently considering to implement “Demand response aggregators”

Their main function is to unite the possibilities of unloading several retail consumers and to present them on the wholesale electric power market

In Russia demand response aggregators are distribution companies, including guaranteed suppliers.

# THANK YOU FOR YOUR ATTENTION!

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