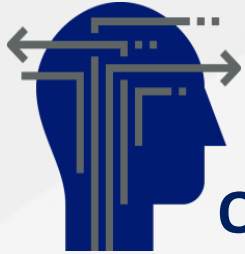


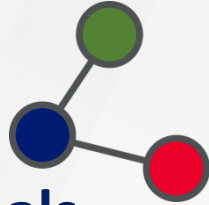


Gas products trading simulator EnerTrade and prospects of imitation models development in the energy industry

Diana Stekhova
Ph.D. in Economics, Senior lecturer



Effective calibration of strategies



Optimization of competences and skills of professionals



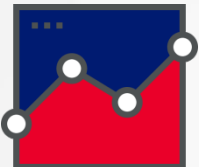
Real life experience



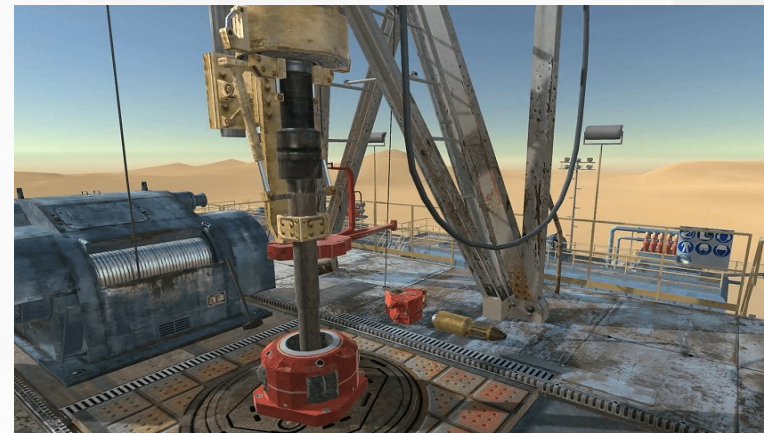
**Imitation mechanics, a wide range of
variables and values, variability of
scenarios, implications**



Full cognitive involvement and reflection

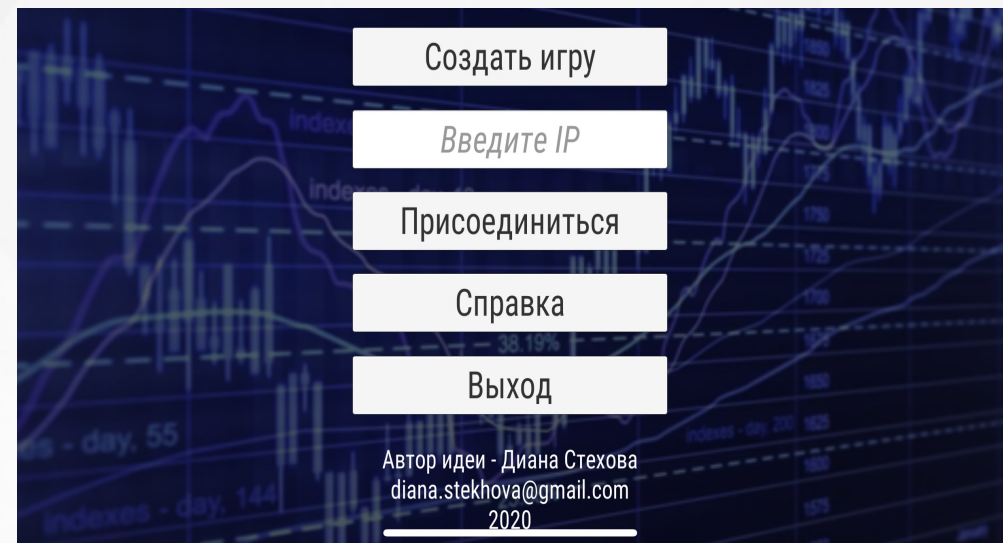


**Accumulation of data, typical errors,
development of recommendations
considering Big Data and Data Science**



Goal

to master skills in portfolio optimization,
calibration of marketing strategies and business process modeling
with zero loss and risk for the industry



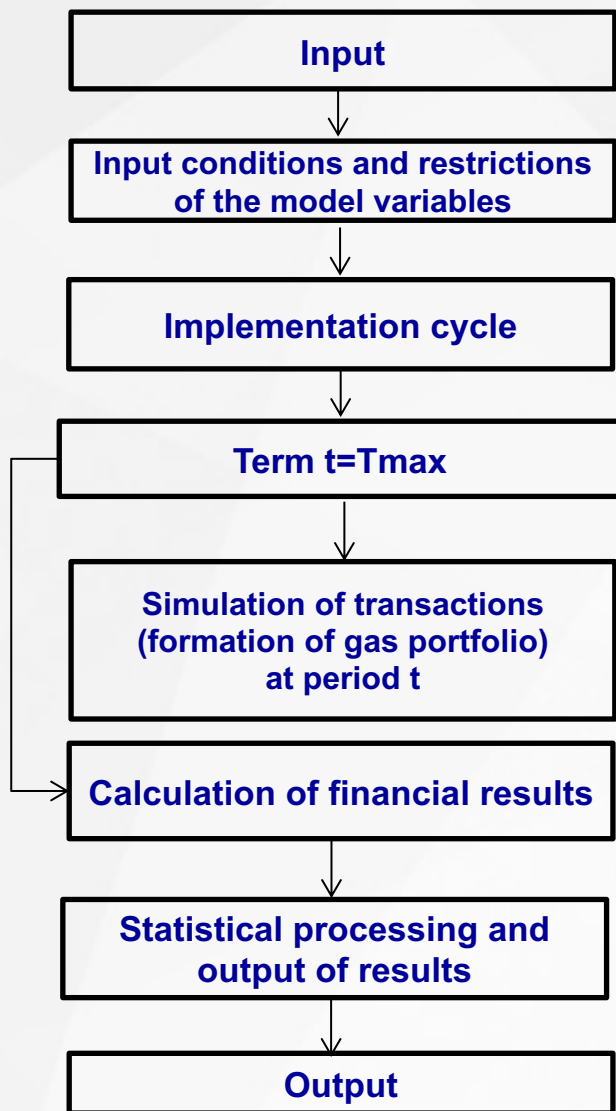
Knowledge and practical skills in the following areas:

Management of gas
and energy assets
portfolio

Price drivers:
information pricing
factors of fundamental
and non-fundamental
properties

Gas and energy
products trading
environment

Profit and loss,
margin



News that determine the dynamics of gas prices

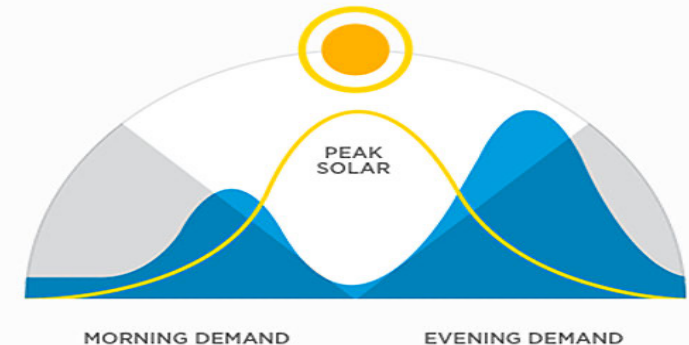
День	№	Продукт	Тренд	Сила влияния	Период влияния
1	1.1	DA*	neutral		ST
	1.2	DA, Season	bearish	--	ST
2	2.1	DA, Season	bullish	++	ST
	2.2	DA, Season	bearish	-	ST
3	3.1	DA	bearish	--	LT
	3.2	DA, Season	bullish	+++	ST
4	4.1	DA, Season	bullish	+++	ST
	4.2	DA, Season	bullish	++	ST
5	5.1	DA	bearish	---	ST
	5.2	DA, Season	bearish	--	LT

* DA - Day ahead

Gas products trading simulator EnerTrade: pricing mechanism for gas products

Factor groups:

- Fundamental factors (demand vs. supply)
- Geopolitical situation
- «Market sentiments»



Short Term

- Climate: temperature, renewable generation
- Gas flows, including LNG
- Gas balance in the system (its compliance with market requirements)
- Maintenance at facilities
- Underground gas storage facilities

Long Term

- Macroeconomic forecasts
- Actions of regulators
- Infrastructure aspects
- Oil prices

- Currency exchange rates
- Other factors: prices of other commodities, the cost of production (dark/spark spreads), etc.

Рабочее окно администратора

Адрес для моб: 10.185.111.100

Адрес для ПК: 10.185.111.100

День

1

Конец дня

Результаты

Выберите номера новостей

1

2

3

- The maximum volume of gas has been injected into European UGS over the past 5 years. The European Association of UGS operators (GSE) believes that if the winter is expected to be warm, then gas injection into UGS next year will begin a few weeks later than usual
- Futures on natural gas with delivery in July 2022 rose and returned to a position of contango
- The Norwegian government has decided to reduce by 5 % the tariffs for gas transportation services since the 1st of April 2022

Отправить
новости

Редактор
новостей

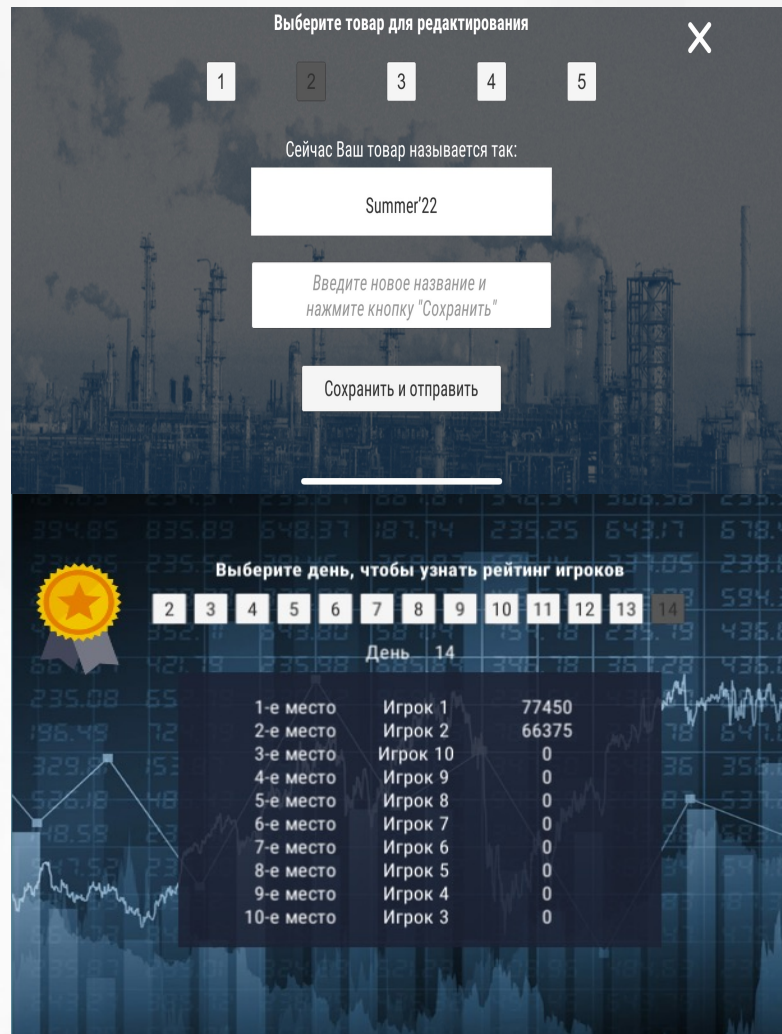
Редактор
портфеля

Редактор
рынка

Загрузить
игру

Portfolio	Day ahead (DA) 24 MWh = 2,3 MCM (delivery during a day at 1 MWh from 6:00 to 6:00) Season ahead (SA) – Summer' 22 Размер лота SA - 4 368 МВт*ч = 420 тыс. куб. м (delivery within six months from April to September 2022 at 1 MWh)
VTP	GASPOOL, Germany
Unit	MWh
Assets	Unlimited cash deposit
Maximum bid/ask volume per day	DA – 1 000 lots (24 GWh = 2,3 MCM) Summer' 22 – 100 lots (436,8 GWh = 42,5 MCM)
Imbalance fee	0,26 €/ MWh

The input conditions could be flexibly adapted to the industry tasks and market conditions



Выберите товар для редактирования

1 2 3 4 5

Сейчас Ваш товар называется так:

Summer'22

Введите новое название и нажмите кнопку "Сохранить"

Сохранить и отправить

Выберите день, чтобы узнать рейтинг игроков

2 3 4 5 6 7 8 9 10 11 12 13 14

День 14

1-е место	Игрок 1	77450
2-е место	Игрок 2	66375
3-е место	Игрок 10	0
4-е место	Игрок 9	0
5-е место	Игрок 8	0
6-е место	Игрок 7	0
7-е место	Игрок 6	0
8-е место	Игрок 5	0
9-е место	Игрок 4	0
10-е место	Игрок 3	0

- Interface at PC with an individual or team result

GASPOOL PRICE ASSESSMENT						
13 OCTOBER 2020						
						€/MWh
Period	Bid Qty	Bid Price	Offer Price	Offer Qty	Diff	Volatility Index
DA (Day-Ahead)	794	15,89	16,11	945	0,27	69,20%
Summer'21	437	15,50	15,80	512	0,25	28,90%
WD (Within Day)	895	15,2	15,24	764	-0,24	76,10%
WE (Week-End)	708	14,98	15,12	637	-0,12	69,10%
BH (Bank Holiday)	456	14,88	15,01	410	-0,32	49,78%
November'20	521	15,44	15,62	469	0,44	36,10%
December'20	634	14,95	15,16	571	0,41	31,10%
January'21	746	15,56	15,82	671	0,32	22,63%
February'21	648	15,64	15,95	583	0,28	18,65%
March'21	531	14,95	15,16	478	0,32	21,64%
April'21	447	14,75	15,06	402	-0,34	22,40%
Q1'21	432	15,16	15,38	389	0,39	26,10%
Q2'21	339	15,34	15,58	305	-0,08	16,10%
Q3'21	225	14,44	14,62	203	-0,18	18,90%
Q4'21	214	14,84	15,21	193	-0,06	22,90%
Winter'21	508	16,36	16,79	457	0,32	25,51%
Summer'22	332	14,82	15,12	299	-0,44	17,34%
Winter'22	258	16,66	16,97	232	-0,52	25,51%
Summer'23	207	14,82	15,12	186	-0,28	17,34%
Year'2021	388	16,36	16,88	349	0,18	24,51%
Year'2022	346	16,04	16,38	311	-0,22	15,34%
Year'2023	285	15,75	16,18	257	-0,35	15,83%

Новости. День 12

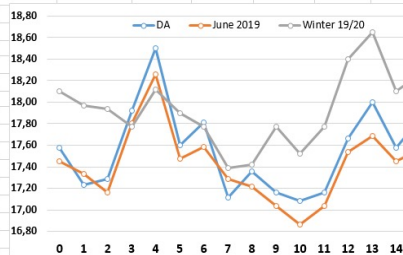
- Argus опубликовал прогноз спроса на газ и температуры воздуха в ФРГ на текущий и ближайшие дни:
Actual demand Oct'14 - 230.71 mn m³ (ba)* at 12.3 °C (aa)
Forecast demand Oct'15 - 216.45 mn m³ (ba) at 12.8 °C (aa)
Forecast demand Oct'16 - 205.10 mn m³ (ba) at 13.1 °C (aa)

(*ba - below average, aa - above average)

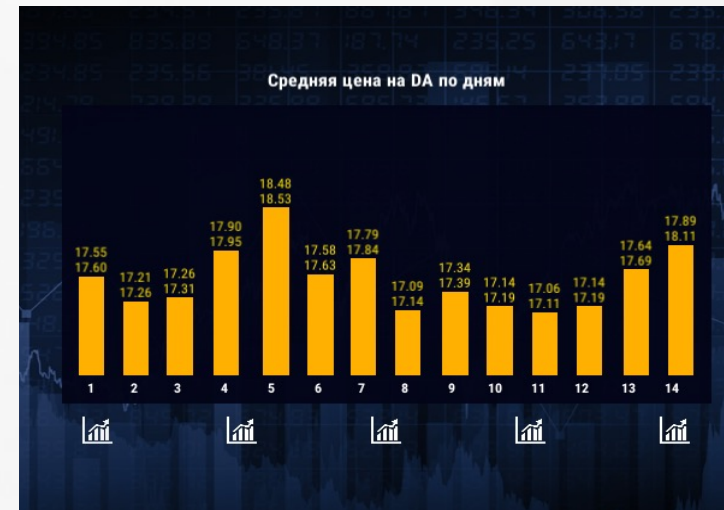
- Со второго кв. 2021 г. Китай начнет сокращение импорта угля по 4 -7 % в месяц нарастающим итогом. Ставится цель снизить общий объем импорта в годовом исчислении до 190 млн.т (в 2020 г. он составил 240 млн.т).
- Правительство ФРГ отказалось от ранее принятых планов построить шесть газовых электростанций вместо АЭС, выводимых из эксплуатации к 2021 г.

№	Expiry	BidQty	AskQty	PL	PL total	Imbalance fee	PL final	Portfolio, MWh
1	DA	1000		2650	5350	3975	72 930	15 000
	June 2019	1000		1100			0	10 000
	Winter 19/20	1000		1600			0	50 000
2	DA			0	0	0	0	0
	June 2019			0			0	0
	Winter 19/20			0			0	0
3	DA			0	3700	0	90 350	0
	June 2019	1000		1100			0	-10 000
	Winter 19/20	1000		1600			0	50 000
4	DA	910		2411,5	5111,5	4823	82 271	18 200
	June 2019	1000		1100			0	65 600
	Winter 19/20	1000		1600			0	36 000
5	DA	5000		13250	15950	13250	106 475	50 000
	June 2019	1000		1100			0	-10 000
	Winter 19/20	1000		1600			0	40 000
6	DA	1750		4637,5	7337,5	9275	94 294	35 000
	June 2019	1000		1100			0	-12 500
	Winter 19/20	1000		1600			0	30 000
7	DA			0	0	0	0	0

Expiry	BidQty	BidPrc	AskPrc	AskQty
DA	55160	17,55	17,60	0
June 2019	20700	17,35	17,55	2000
Winter 19/20	19000	17,95	18,25	1000



- EnerTrade application, available on phones, tablets and PC emulators



Игрок 3 День 14

Результаты

BidQty	BidQty	BidQty	BidQty	BidQty
AskQty	AskQty	AskQty	AskQty	AskQty

Dynamic adoption and compliance with the energy business and academia goals

Customization and branching out in the other fields due to the «flexible concept»

Part of the world energy specialists competition



Thank You!



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Senior lecturer

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Department of energy products marketing

Gubkin Russian State University of oil and gas

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