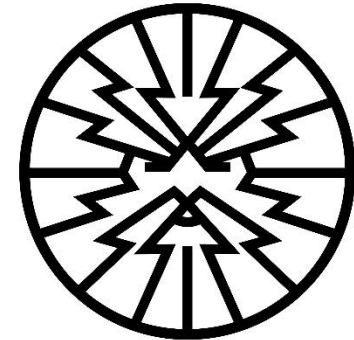


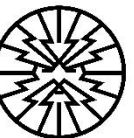
Janitza Reference Project Russia



Janitza®



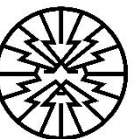
ZEUSELECTRO
ELECTRO EST NUMERUS



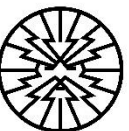
ZEUSELECTRO
ELECTRO EST NUMERUS

ZEUSELECTRO: PQ Lab Russia

- Vitaly Ponomarev
- Head of PQ LAB
ZEUSELECTRO
- www.zeuselectro.com
- +7(495)118-31-59



Partnership Janitza from 2009

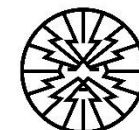


Services: Best Janitza Practices



PQ ANALYSIS

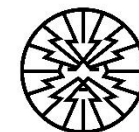
- EN50160 (GOST 32144-2013)
- TEMPORARY MEASUREMENT
- FAULT ANALYSIS



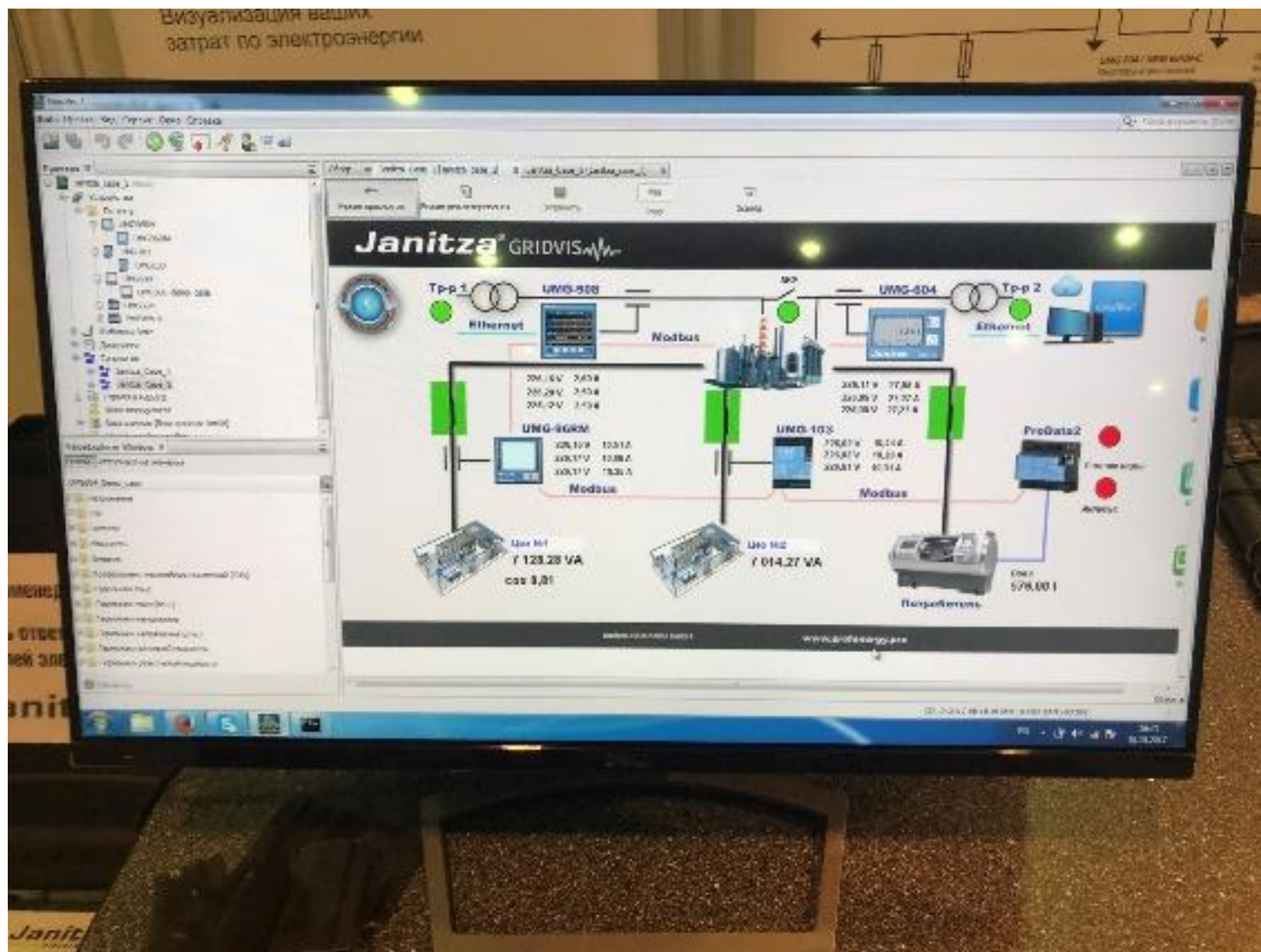
Services: Best Janitza Practices



TEST- DRIVE
24 HOURS TO INSTALL
AND START TO
MEASURE

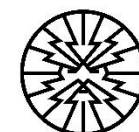


Services: Best Janitza Practices



GRIDVIS

- EN+PQ+RSM SYSTEM IMPLEMENTATION

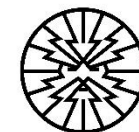


Services: Best Janitza Practices



**POWER
SOLUTION
ANALYSIS ->**

- PFC
- SVG
- APF
- AVC



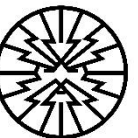
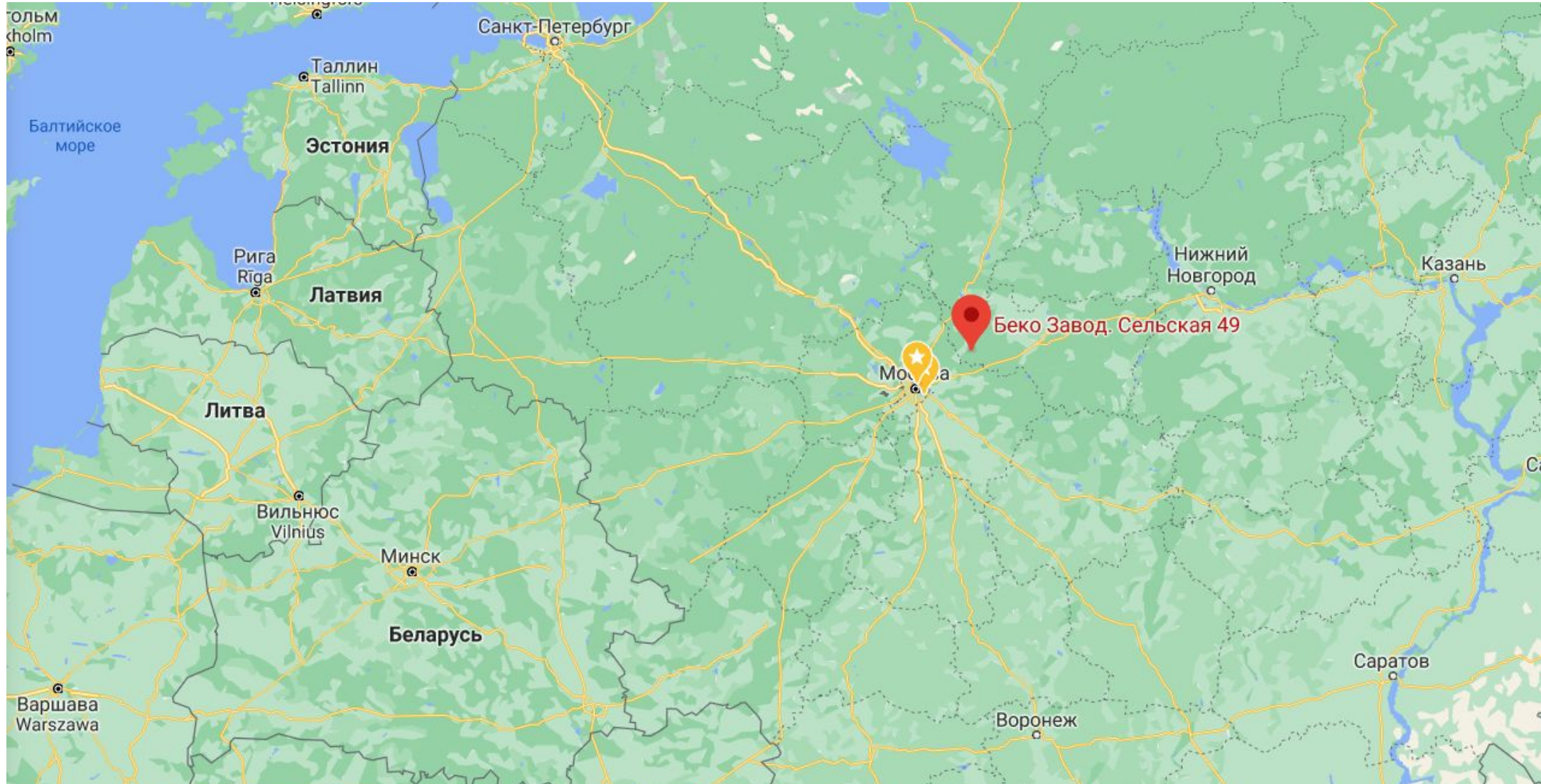
Arçelik

**RESPECTING THE WORLD,
RESPECTED WORLDWIDE**

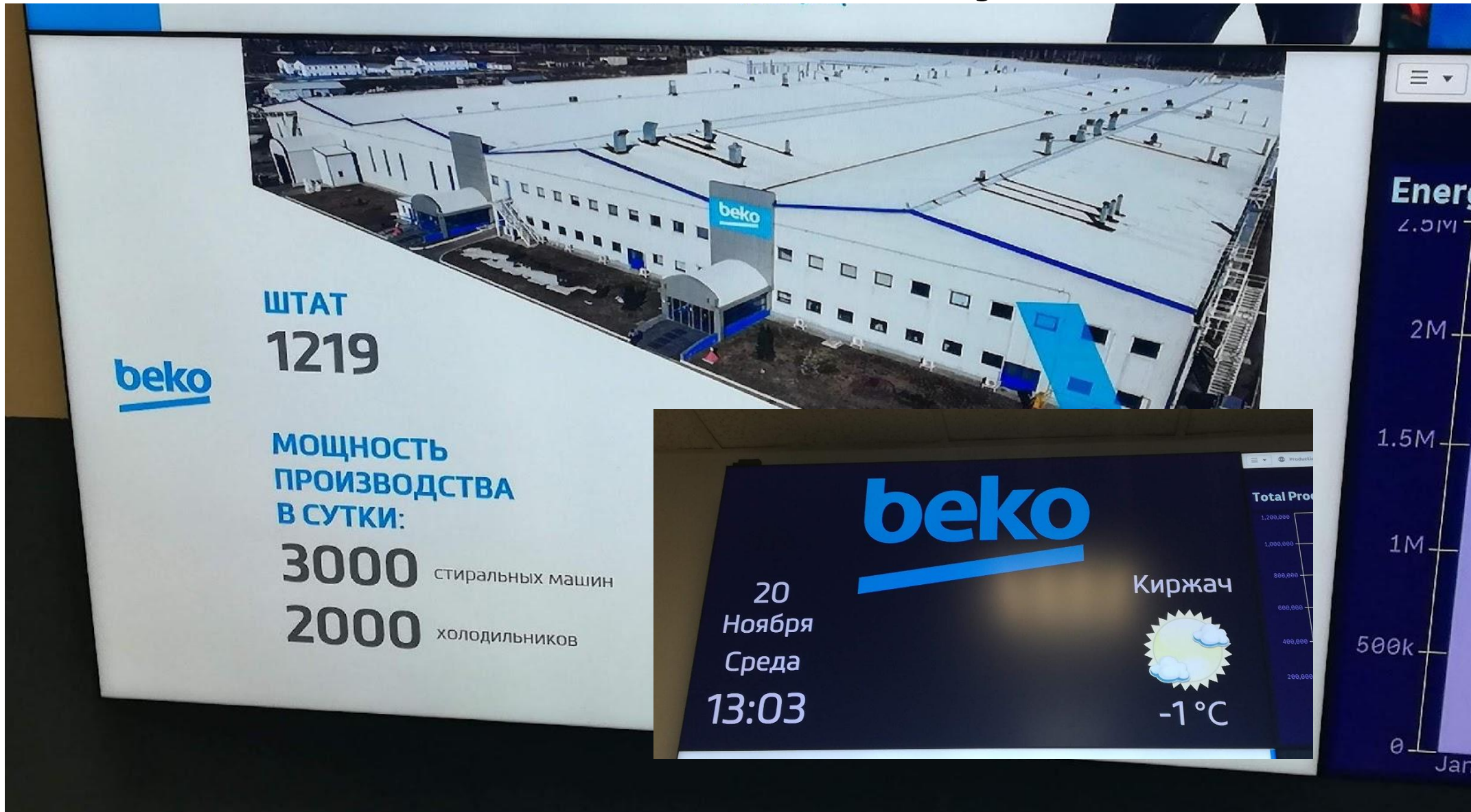
beko

 **Koç**

Janitza Reference Project Russia



Janitza Reference Project Russia



Central Energy Monitoring Project

SUSTAINABILITY AND CORPORATE AFFAIRS

2nd SteerCo

30.07.2018



Arçelik

PROJECT TARGETS

SUSTAINABLE
ENERGY
MANAGEMENT
MODEL

ALLOWS TO
MONITORING
THE ENERGY
KPI'S ON
QLIKSENSE

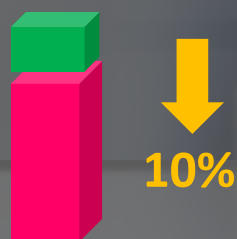
All plants
will use the
same software

REAL-TIME
CONSUMPTION
MONITORING
PER PRODUCED
UNIT

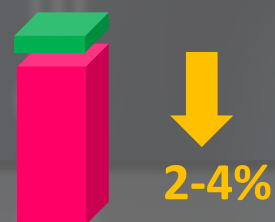
Regression
analyses for
equipment
consumptions with
production data

Monitoring the
plant's base energy
consumptions and
allows continuous
improvement
opportunities

Energy saving in
equipments up to 10% via
Data Analytics feature



UP TO 2-4% ENERGY
SAVINGS PER PLANT



400 (man x day) saving
compared to manual
reporting



PROJECT PARTNERS



Energy Management

Providing daily follow-up of plants energy KPIs

Easy and automatic reporting



PEMs

DETERMINATION OF ENERGY PARAMETERS FOR NEW INVESTMENT FEASIBILITY STUDIES



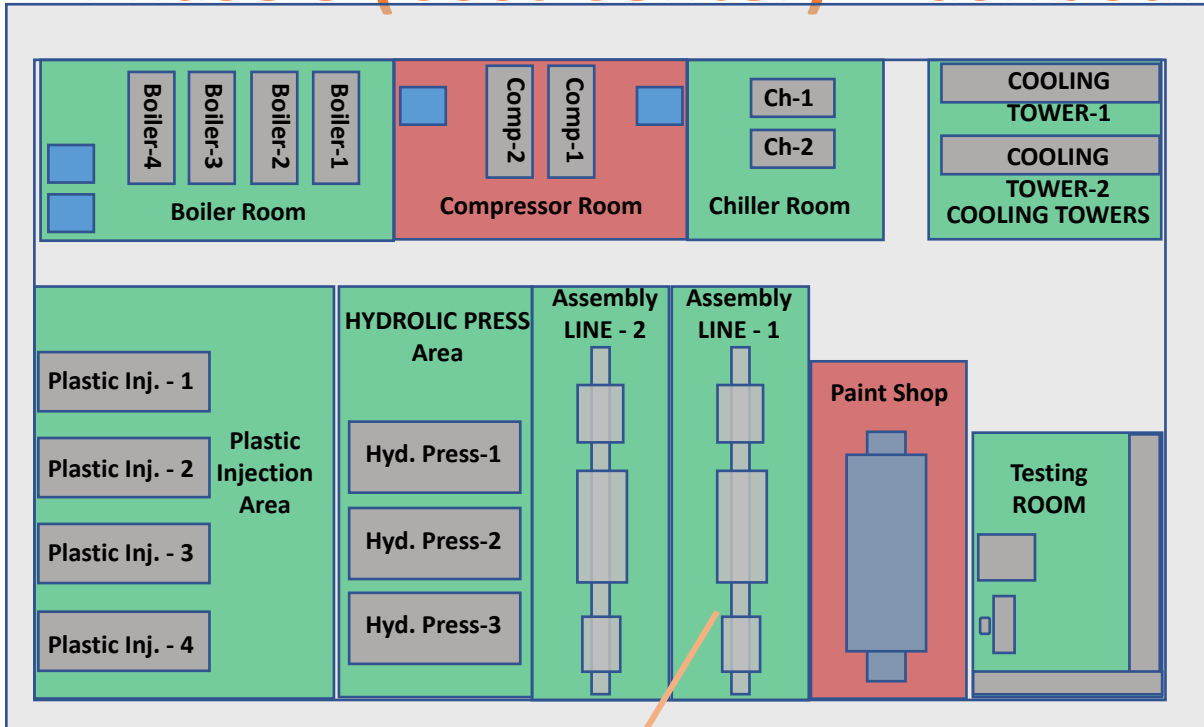
Information Technologies

Standardization in energy monitoring software

Taking energy data of the plants with a standard protocol

Gathering plant's energy data to Data Lake

Phase 3 (Cost Center) Dashboard

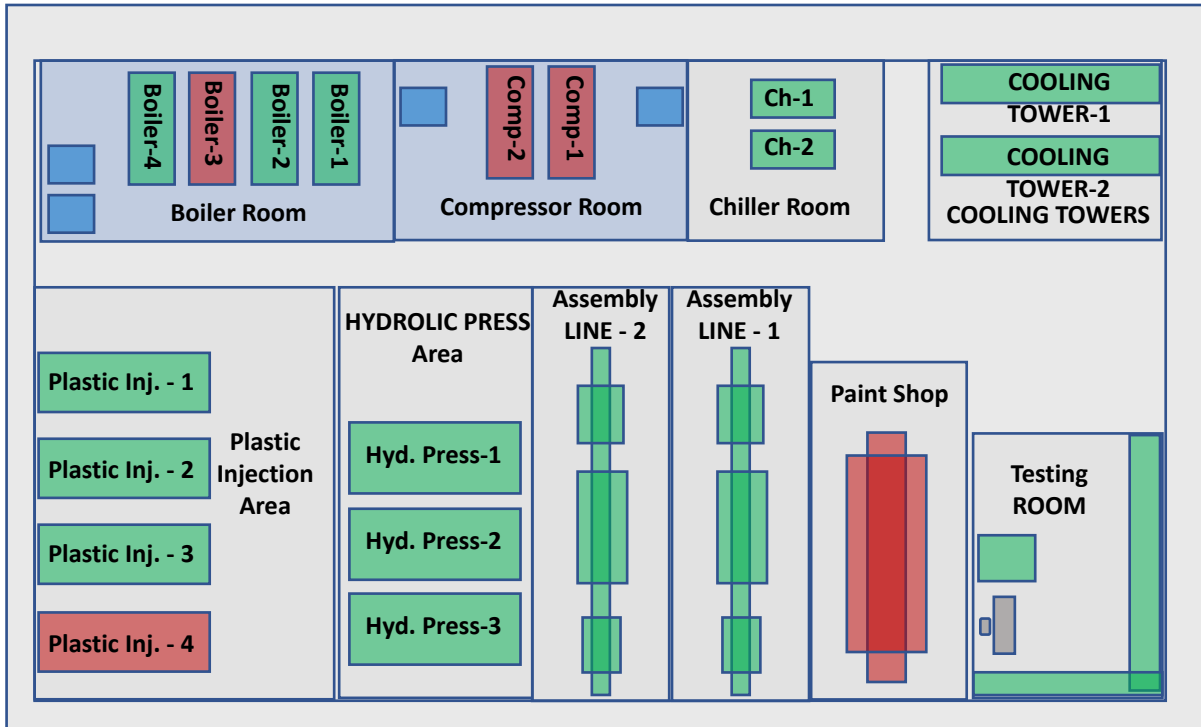


Cost Center	[kWh]		Trend	Change [%]
	Expected	Actual		
Boiler Room	25000	23985		-4,1%
Compressor Room	9112	9853		8,1%
Chiller Room	8698	8562		-1,6%
Cooling Towers	2716	2709		-0,3%
Plastic Injection Area	30490	29752		-2,4%
Hydraulic Press Area	10716	10598		-1,1%
Assembly Line-1	8652	8245		-4,7%
Assembly Line-2	7986	7912		-0,9%
Paint Shop	11258	12598		11,9%
Testing Room	3970	3752		-5,5%



MONITORING OF ENERGY DATA ON THE BASIS OF COST CENTER

Phase 4 (Machine Based) Dashboard

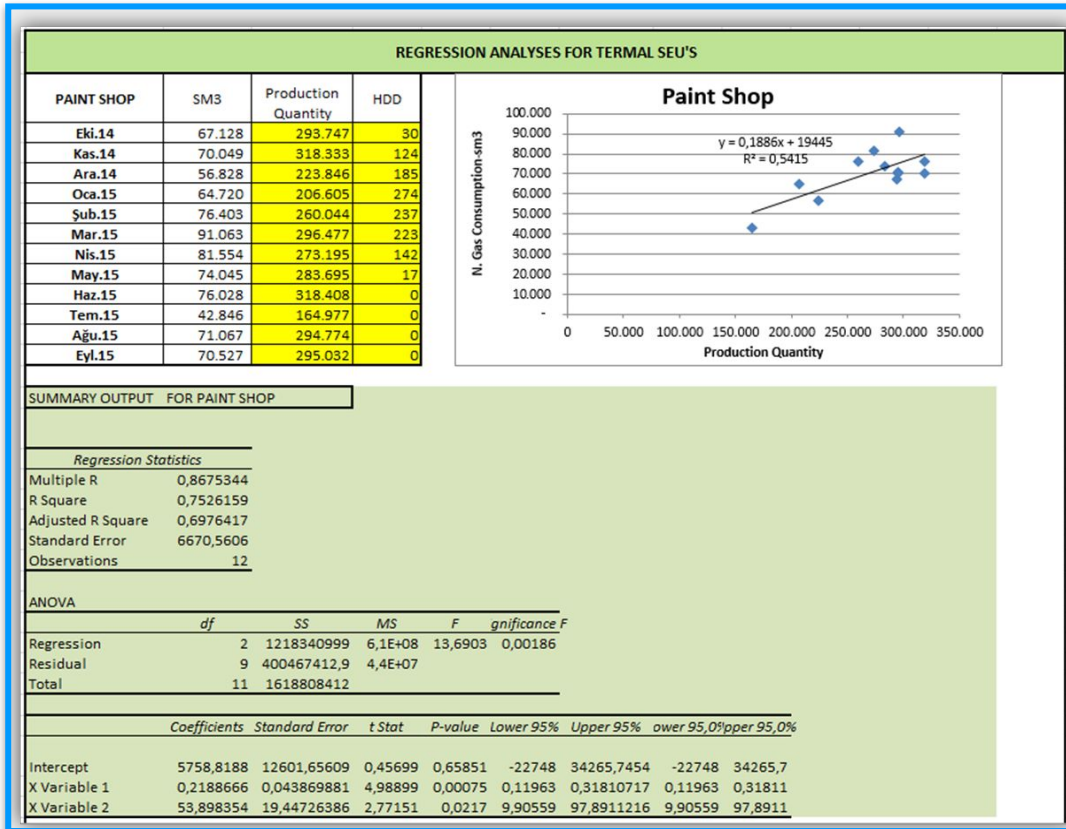


Machine Based Consumptions	[kWh]		Trend	Change [%]
	Expected	Actual		
Boiler-1	6500	6420		-1,2%
Boiler-2	5200	5189		-0,2%
Boiler-3	4980	5150		3,4%
Boiler-4	8320	8290		-0,4%
Compressor-1	4985	5120		2,7%
Compressor-2	4392	4418		0,6%
Chiller-1	4785	4725		-1,3%
Chiller-2	3913	3797		-3,0%
Cooling Tower-1	1374	1371		-0,2%
Cooling Tower-2	1360	1339		-1,5%

Machine-based energy monitoring (Additional counters for required places)



Phase 5 (Data Analytic) Dashboard

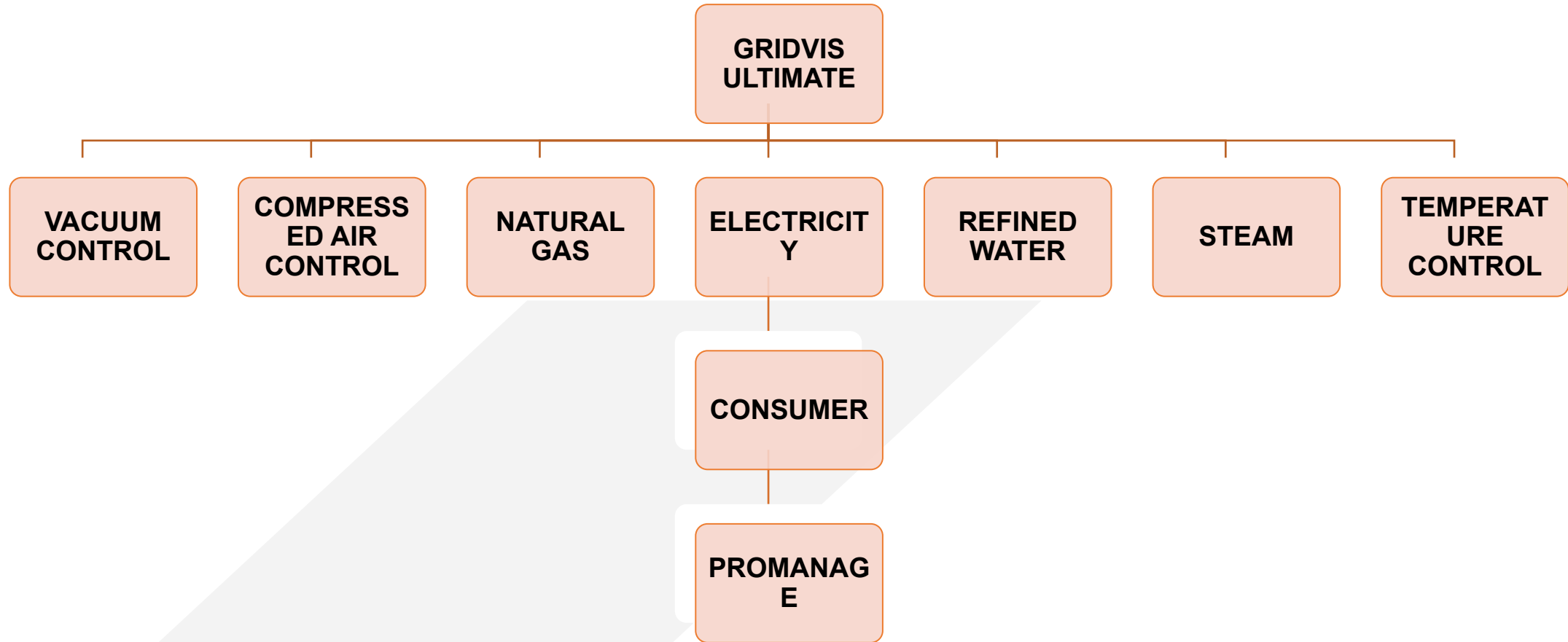


Machine Based Consumptions	[kWh]		Actual vs Expected	Weekly Trend
	Expected	Actual		
Boiler-1	6956	6420	92,29	
Boiler-2	5876	4260	72,50	
Boiler-3	4980	5289	106,20	
Boiler-4	7188	7051	98,09	
Compressor-1	4985	5120	102,71	
Compressor-2	4392	4672	106,38	
Chiller-1	4785	4598	96,09	
Chiller-2	3913	3797	97,04	
Cooling Tower-1	1374	1294	94,18	
Cooling Tower-2	1342	1091	81,30	

- ADVANCED ANALYTICS**
- ✓ REGRESSION ANALYSES
 - ✓ CORRELATION ANALYSES
 - ✓ FORECASTING
 - ✓ PREDICTIVE MODELING
 - ✓ OPTIMIZATION

Energy monitoring structure today

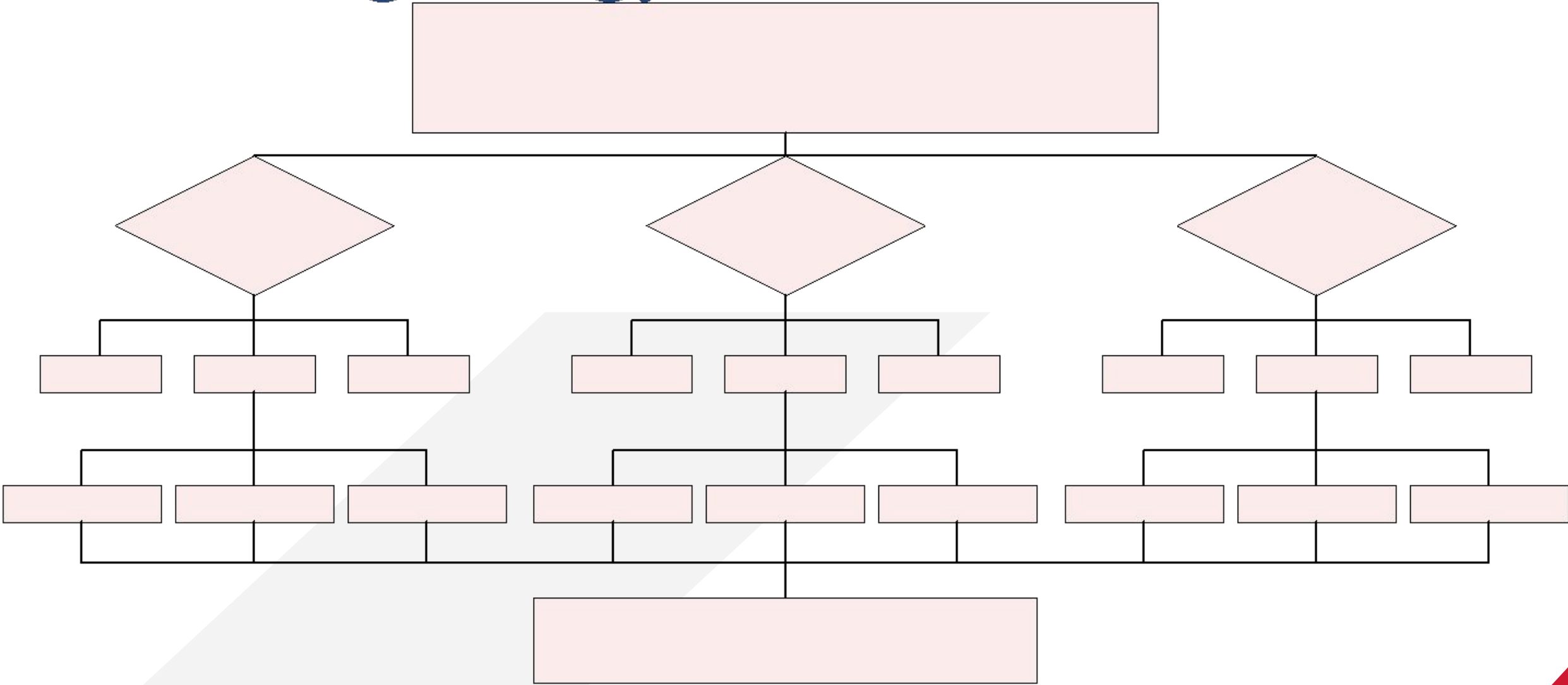
BEKO LLC

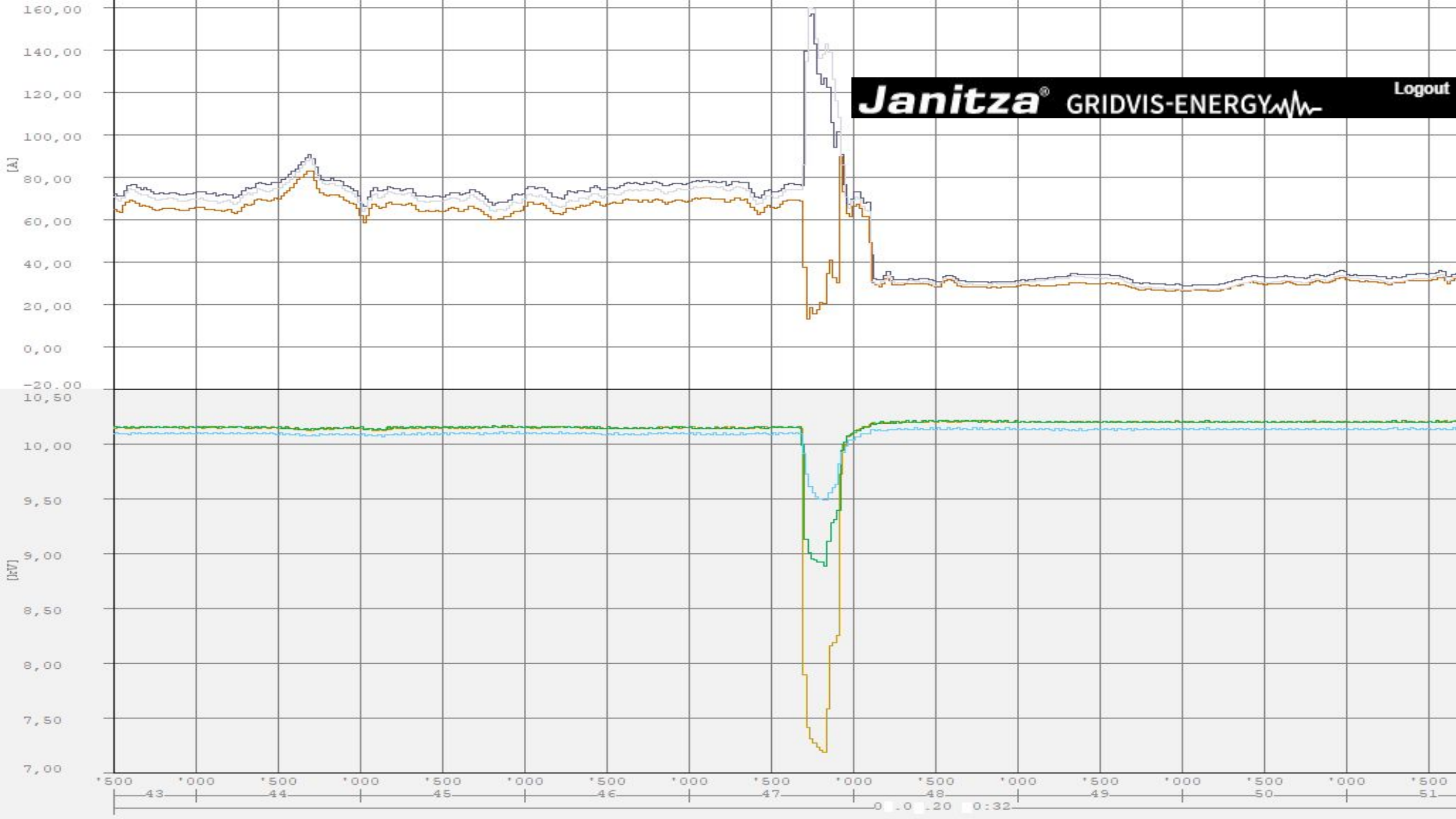


A single resource accumulating data on energy resources with setting access rights and output information

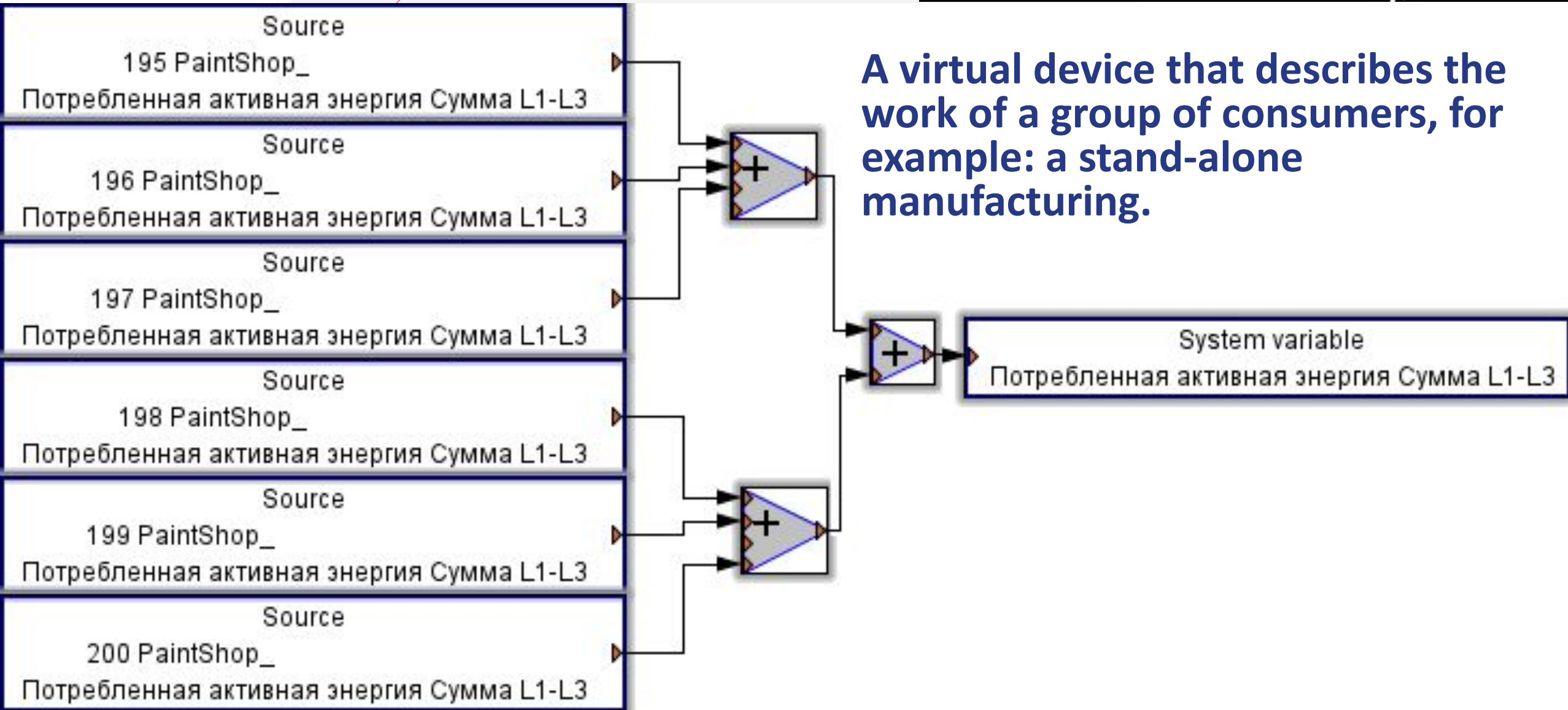
Energy monitoring structure today

BEKO LLC





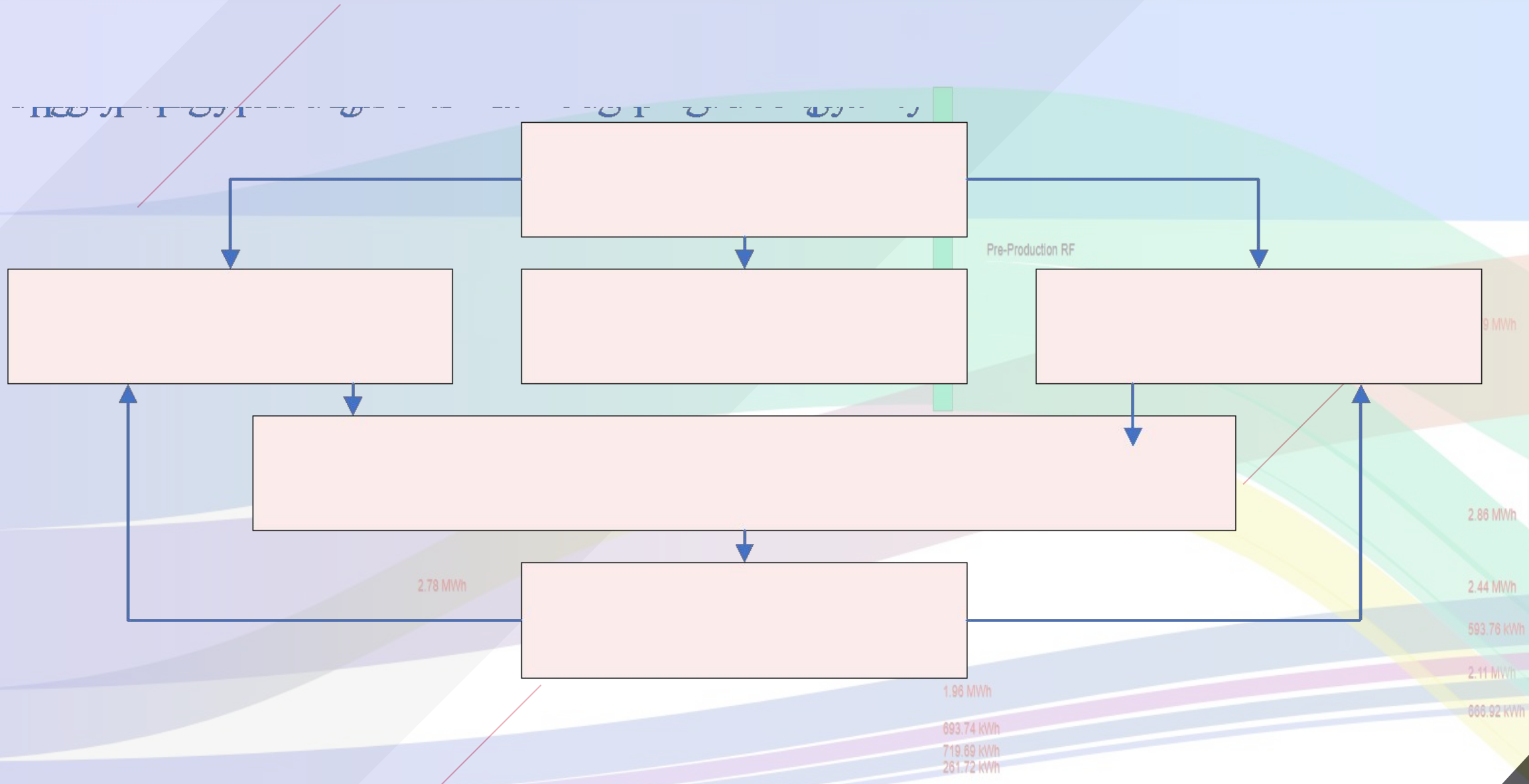
Virtual device



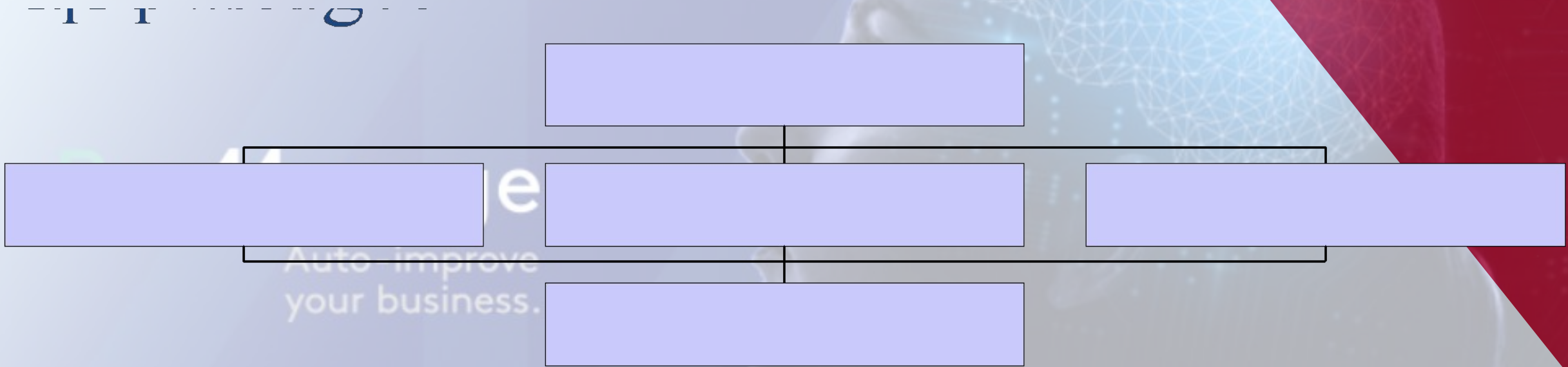
A virtual device that describes the work of a group of consumers, for example: a stand-alone manufacturing.

Optimization of energy consumption through visualization - Sankey diagram

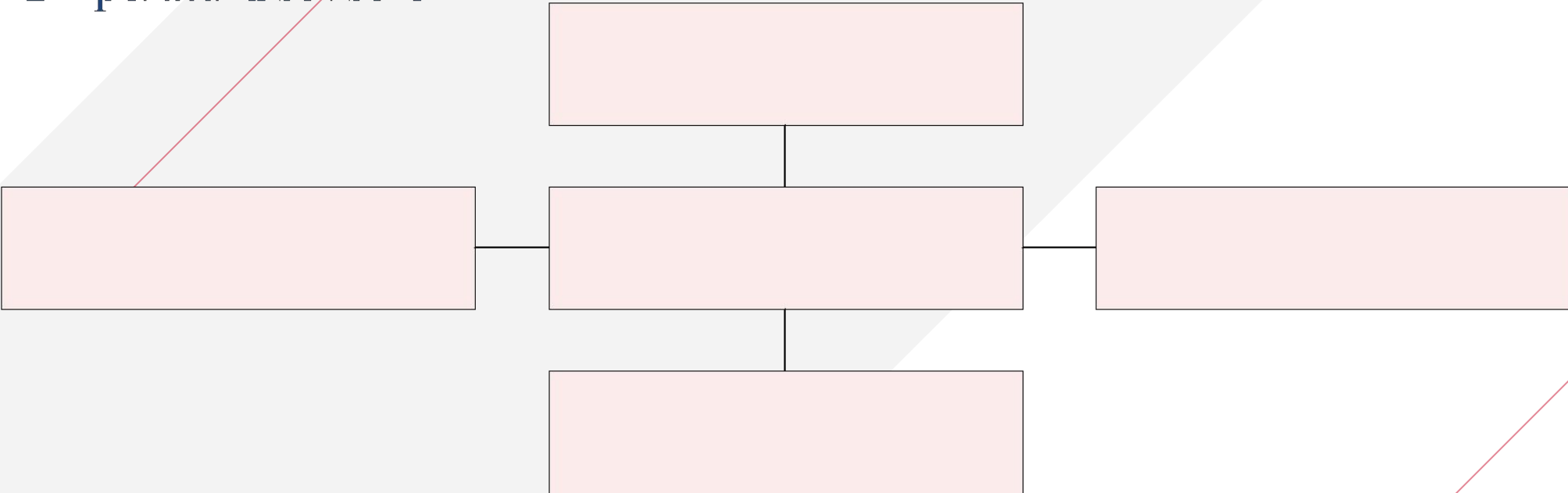
BEKO



Integration of energy monitoring system and component release control

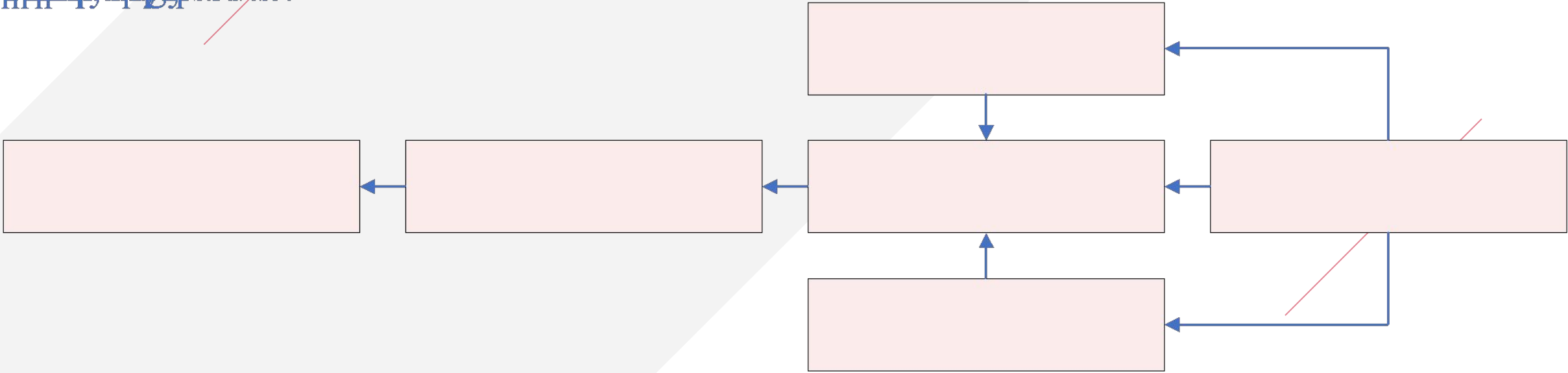


Thermal mapping of indoor ambient temperature



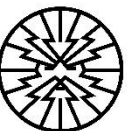
Optimizing energy consumption and improving product quality

1111 11 11 11



Project Details

Server Name:	GridVis Service
Base URL:	
License:	ULTIMATE
Main Project:	BekoLLC_Energy
User Database:	BekoLLC_Energy
Managed Devices:	157 of 285
Admin Password:	*****
Repeat Admin Password:	*****





Projects

- 196 PaintShop_PowderCabin_1_RF
- 197 PaintShop_PowderCabin_2_RF
- 199 PaintShop_PowderCabin_1_WM
- 200 PaintShop_PowderCabin_2_WM
- 205 Lighting_Sewage Treatment
- 210 RFpre_Ekstruder
- 211 RFpre_Ekstruder_Heat
- 213 Lighting_Auxiliary Production 2
- 219 Lighting_FinProdWH 1
- 220 Lighting_FinProdWH 3
- 229 Lighting_Boiler House
- 234 BoilerHouse_#4_Nirvana vsd r160n
- 235 BoilerHouse_#2_Centac
- 236 BoilerHouse_#3_Dalgakiran VSD 160 PLUS
- 237 BoilerHouse_#1_Dalgakiran DVK220D
- UMG 604
- ProData II
 - 231 ProData 2 Boiler Room
 - ??????????-509
- Modbus
 - DIRIS A40
 - EMIS VORTEX 200
 - 180 Mech_Press 2
 - 181 Mech_Hidotam_DoorLine_RF
 - 143 RFpre_RF Cover
- OPC-UA client
- VD
- DI
- Basic Templates
- Graph

Overview Window

Search

Devices: 0 / 60

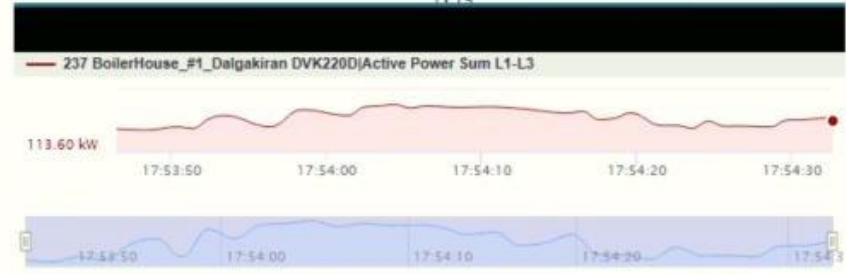
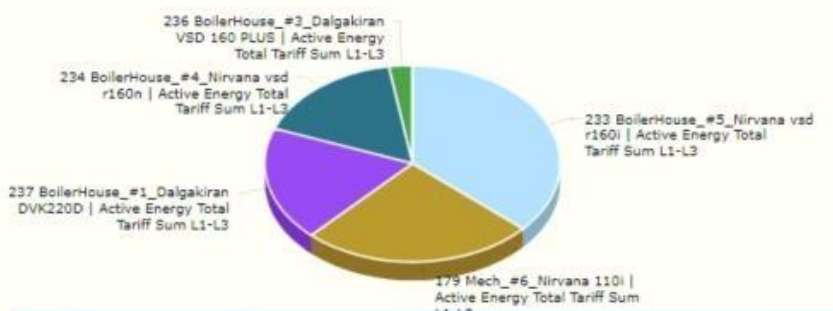
Add new device

	Last state	Name	Description	S/N	Type	Device ID	IP	Last sync	Activated	Connection Type	Firmware	Timeplan	Server Name
		019 Extruder Cut	substation TP 2	7511-7627	UMG103CBM	429	10.7.6.18	10/27/20 5:45:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		020 Extruder Cooling	substation TP 2	7511-7626	UMG103CBM	430	10.7.6.18	10/27/20 5:45:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		030 Hostel	substation TP 3	7511-7649	UMG103CBM	431	10.7.6.29	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		068 Lights_Manual Painting	molding shop		UMG103CBM	432				Not configured			184497f35b0
		069 Lights_Molding shop	molding shop		UMG103CBM	433				Not configured			184497f35b0
		070 Lights_Molding shop	molding shop		UMG103CBM	434				Not configured			184497f35b0
		076 Mold.Shop_Bearing Press 42	molding shop	7511-7658	UMG103CBM	435	10.7.6.61	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		077 Mold.Shop_Bearing Press 43	molding shop	7511-7614	UMG103CBM	436	10.7.6.61	10/27/20 5:45:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		081 Office Ventilation	OfficeVentilation	7511-7646	UMG103CBM	437	10.7.6.82	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		088 Mech_SARES_Drum_WM	Drum_WM_Mech.	7511-7630	UMG103CBM	438	10.7.6.87	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		089 Mech_Miramondi 1_Drum_WM	Drum_WM_Mech.	7511-7617	UMG103CBM	439	10.7.6.87	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		090 Mech_Miramondi 2	Mechanical production	7511-7642	UMG103CBM	440	10.7.6.87	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		091 Mech_SARES2_Drum_WM	Drum_WM_Mech.	7511-7638	UMG103CBM	441	10.7.6.87	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		094 RFpre_Wrapping	RF_Pre-Production	7511-7656	UMG103CBM	444	10.7.6.87	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		098 Lighting_Drum WM Mech	Drum_WM_Mech.		UMG103CBM	445				Not configured			184497f35b0
		102 WM_Branson 1	WM Line	7511-7621	UMG103CBM	446	10.7.6.103	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		104 WM_Branson 2	WM Line	7511-7653	UMG103CBM	447	10.7.6.103	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		105 WM_Kasioli 2	WM Line	7511-7631	UMG103CBM	448	10.7.6.103	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		109 Lighting_WM_Assembly Line 1	WM Line		UMG103CBM	449				Not configured			184497f35b0
		115 Lighting_WM_Assembly Line 2	WM Line		UMG103CBM	450				Not configured			184497f35b0
		128 Mech_FinnPower Press_RF	RF_Mech	7511-7648	UMG103CBM	451	10.7.6.127	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		136 RFPre_FillingDoors_2.1	RF_Pre-Production	7511-7619	UMG103CBM	454	10.7.6.135	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		137 RFPre_FillingDoors_1	RF_Pre-Production	7511-7641	UMG103CBM	455	10.7.6.135	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		144 Lighting_RF_Auxiliary Produ...	RF_Pre-Production		UMG103CBM	456				Not configured			184497f35b0
		153 RF_Assembly Line 2.3	RF_Assembly	7511-7632	UMG103CBM	457	10.7.6.152	10/27/20 6:00:00 PM		ModTCP	2.03	Daily_sync...	184497f35b0
		155 Lighting_RF	RF_Assembly		UMG103CBM	458				Not configured			184497f35b0
		156 Lighting_RF	RF_Assembly		UMG103CBM	459				Not configured			184497f35b0
		161 RF_Cabinet_PU_Vent	FillingHousing_RF_Asse...	7511-7654	UMG103CBM	460	10.7.6.160	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		162 RF_Cabinet_PU_Heat	FillingHousing_RF_Asse...	7511-7610	UMG103CBM	461	10.7.6.160	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		163 RF_Cabinet_PU_Pump	FillingHousing_RF_Asse...	7511-7609	UMG103CBM	462	10.7.6.160	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se
		164 RF_Hidrostation Cabinet Filling	FillingHousing_RF_Asse...	7511-7628	UMG103CBM	463	10.7.6.160	10/27/20 5:50:00 PM		ModTCP	2.03	Daily_sync...	GridVis Se

ValueExplorer Window

Online Historical values

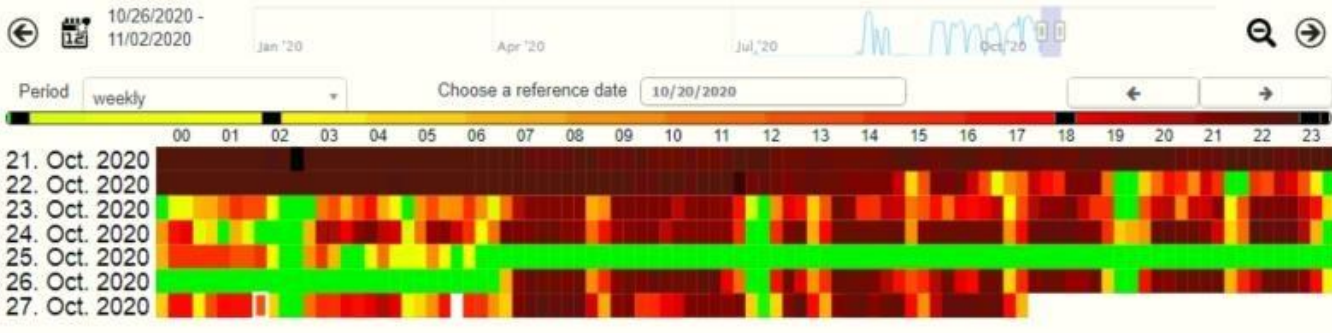
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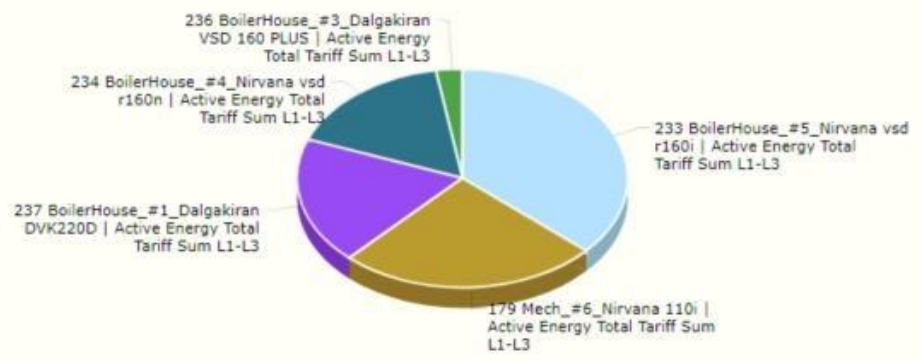


237 BoilerHouse_#1_Dalgakiran DVK220D Consumed Active Energy Total Tariff Sum L1-L3 (kWh)	
Today	1501.34
Yesterday	1568.59
This Week	3344.81
Last Week	15138.00
This Month	47796.88
Last Month	30261.27
This Year	200000.00

№1

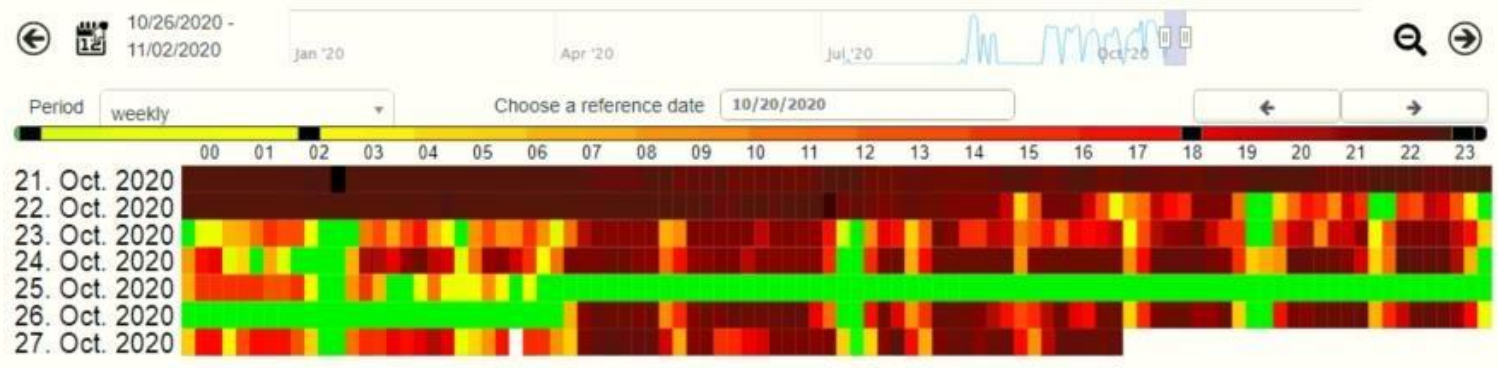
237 - Dalgakiran DVK220D

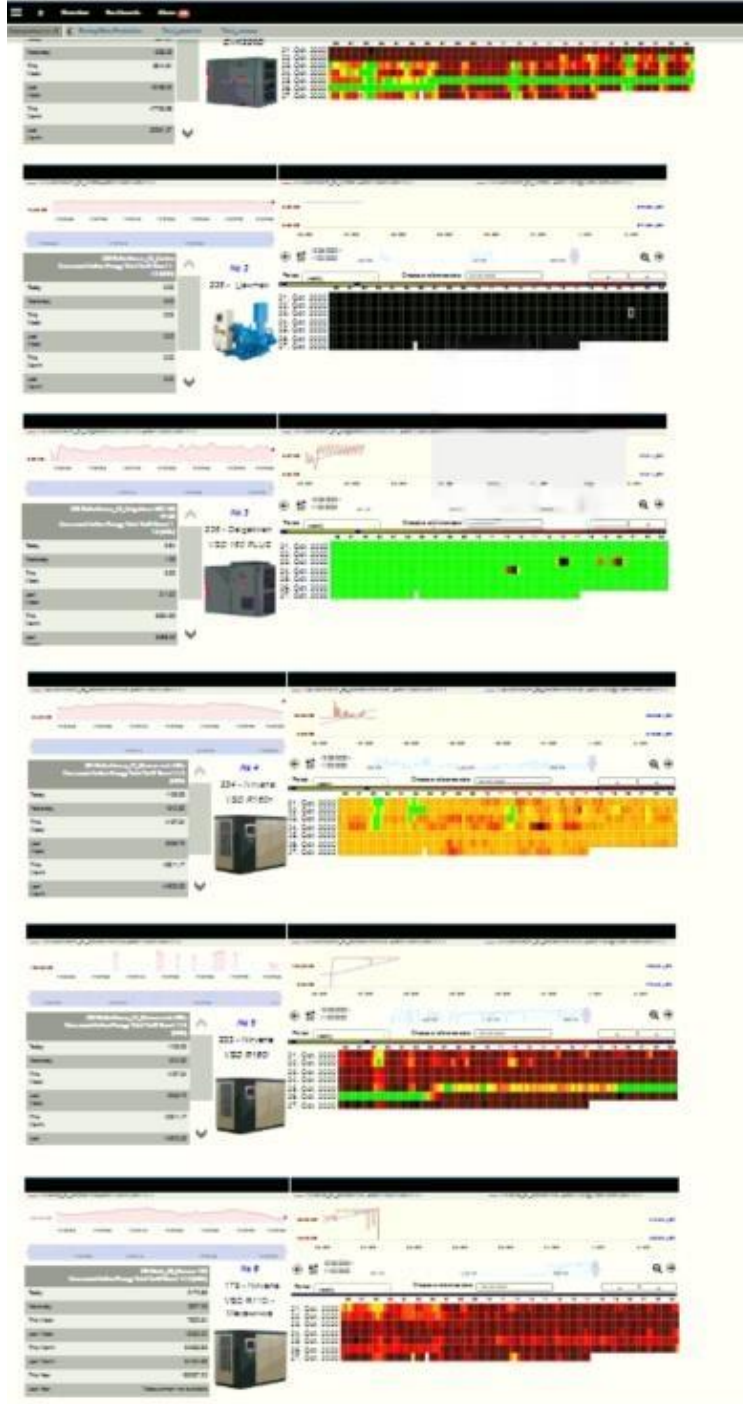
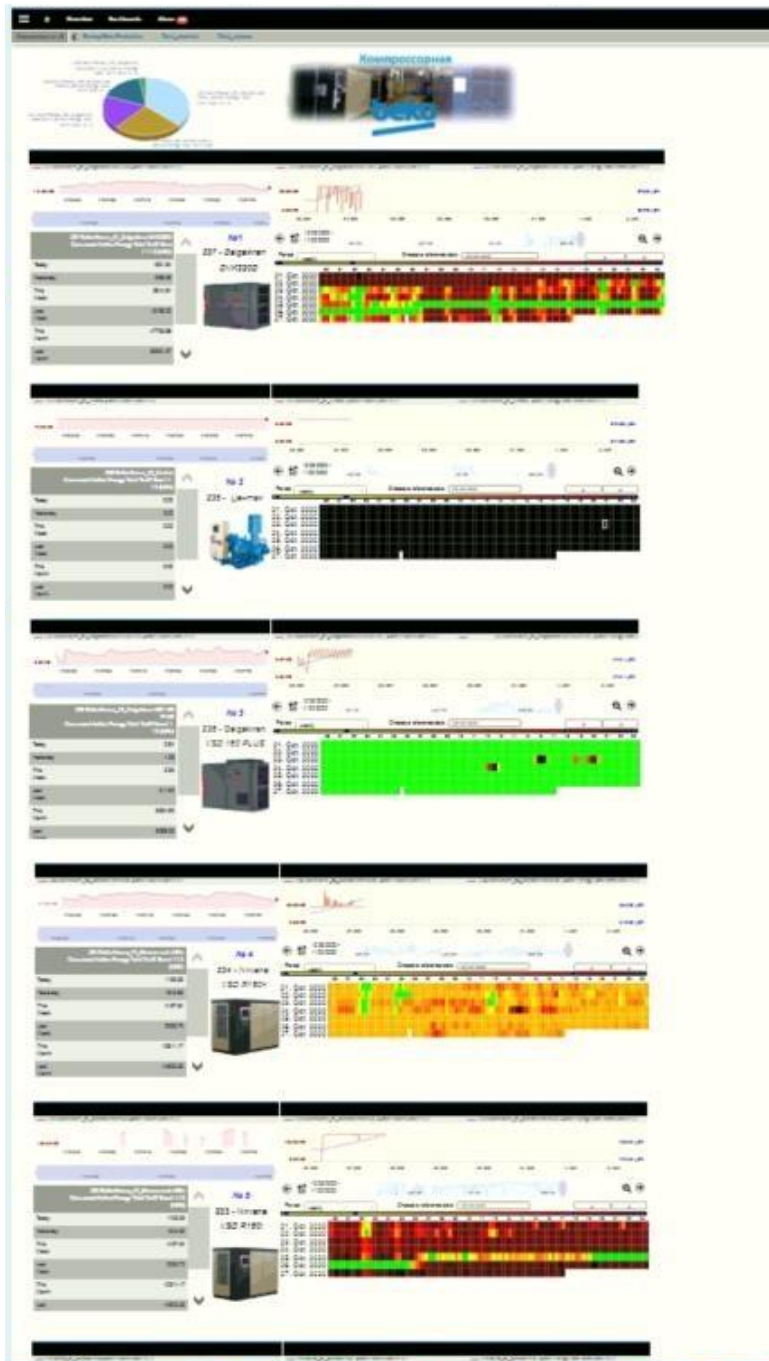




	237 BoilerHouse_#1_Dalgakiran DVK220D Consumed Active Energy Total Tariff Sum L1-L3 (kWh)
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№1
237 - Dalgakiran
DVK220D





Sankey Beko Production Feeders

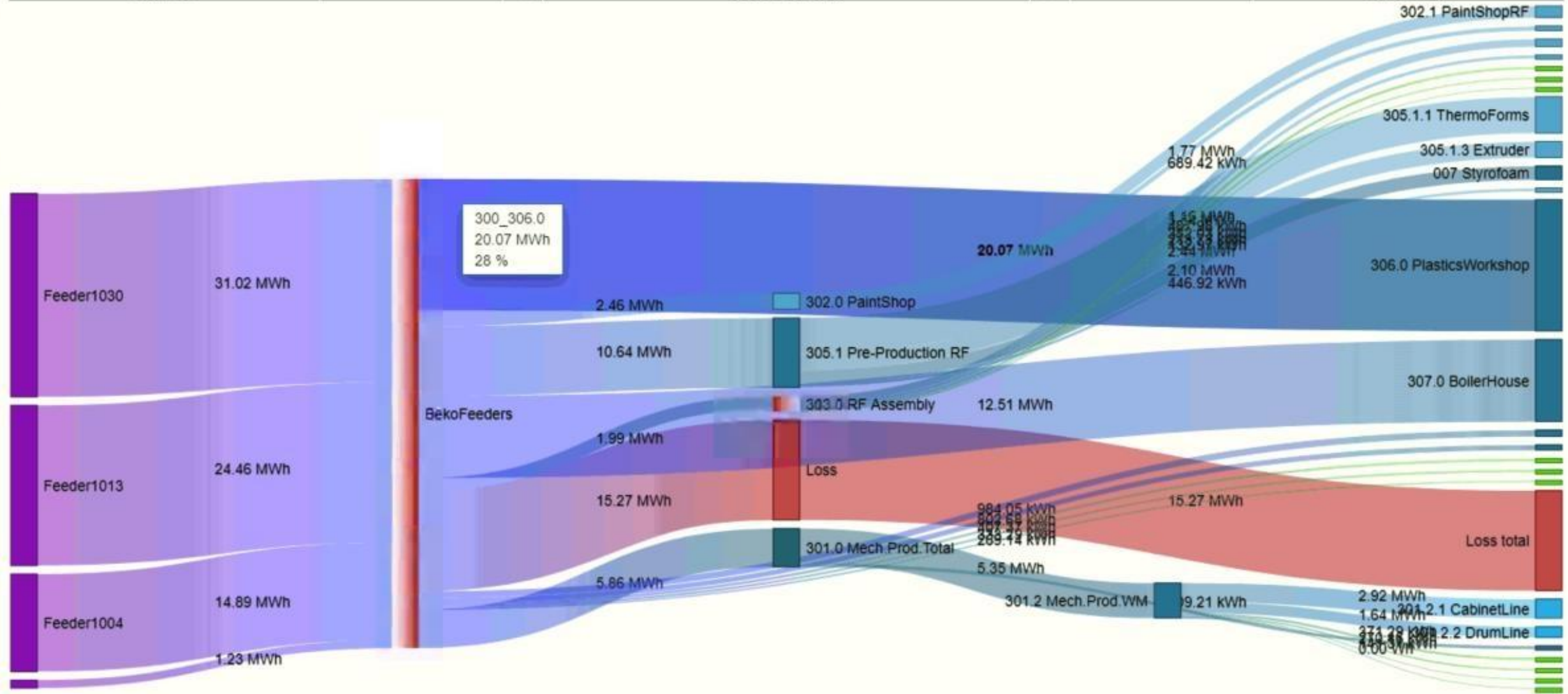
historical

<<

October 26, 2020

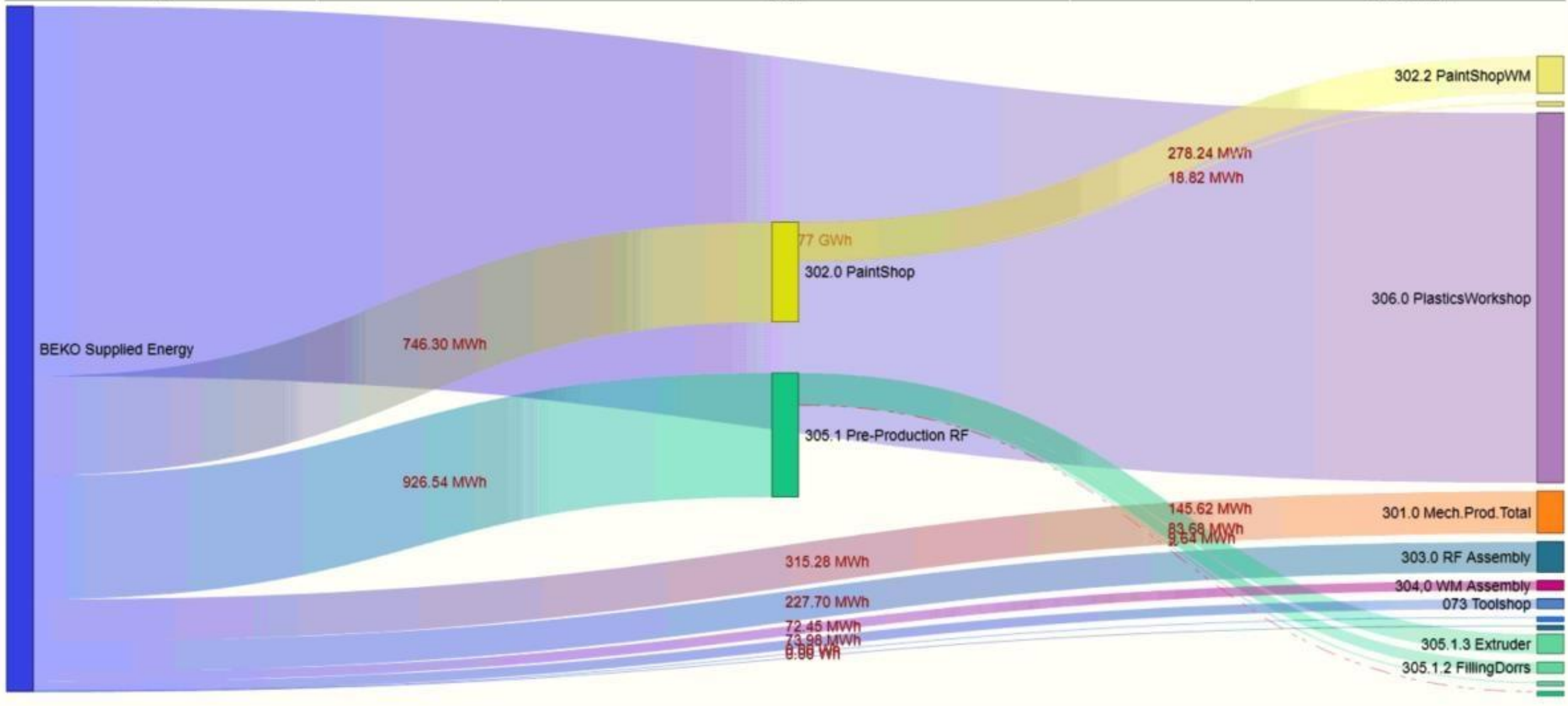
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Active energy



Sankey Beko Production-Live

live 5 sec Active energy



Sankey Beko Production Feeders

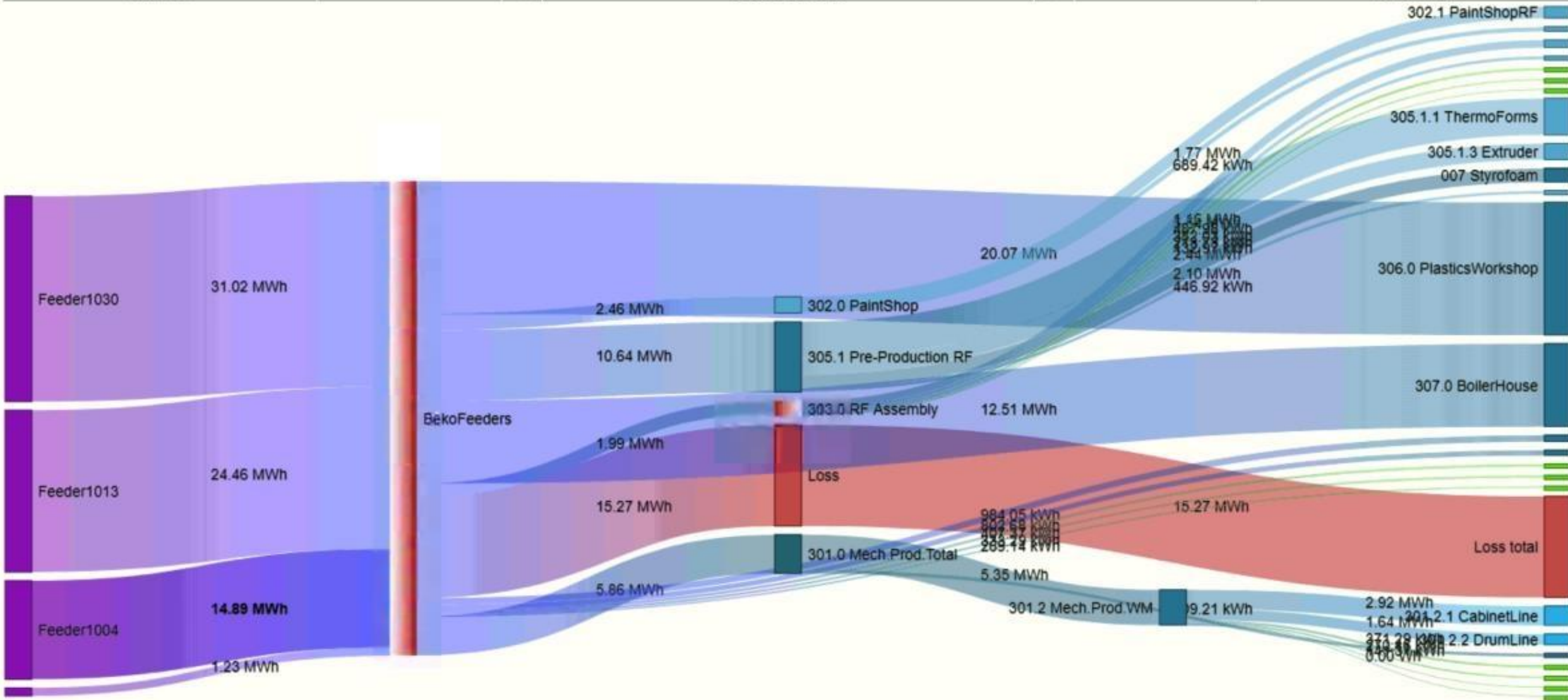
historical

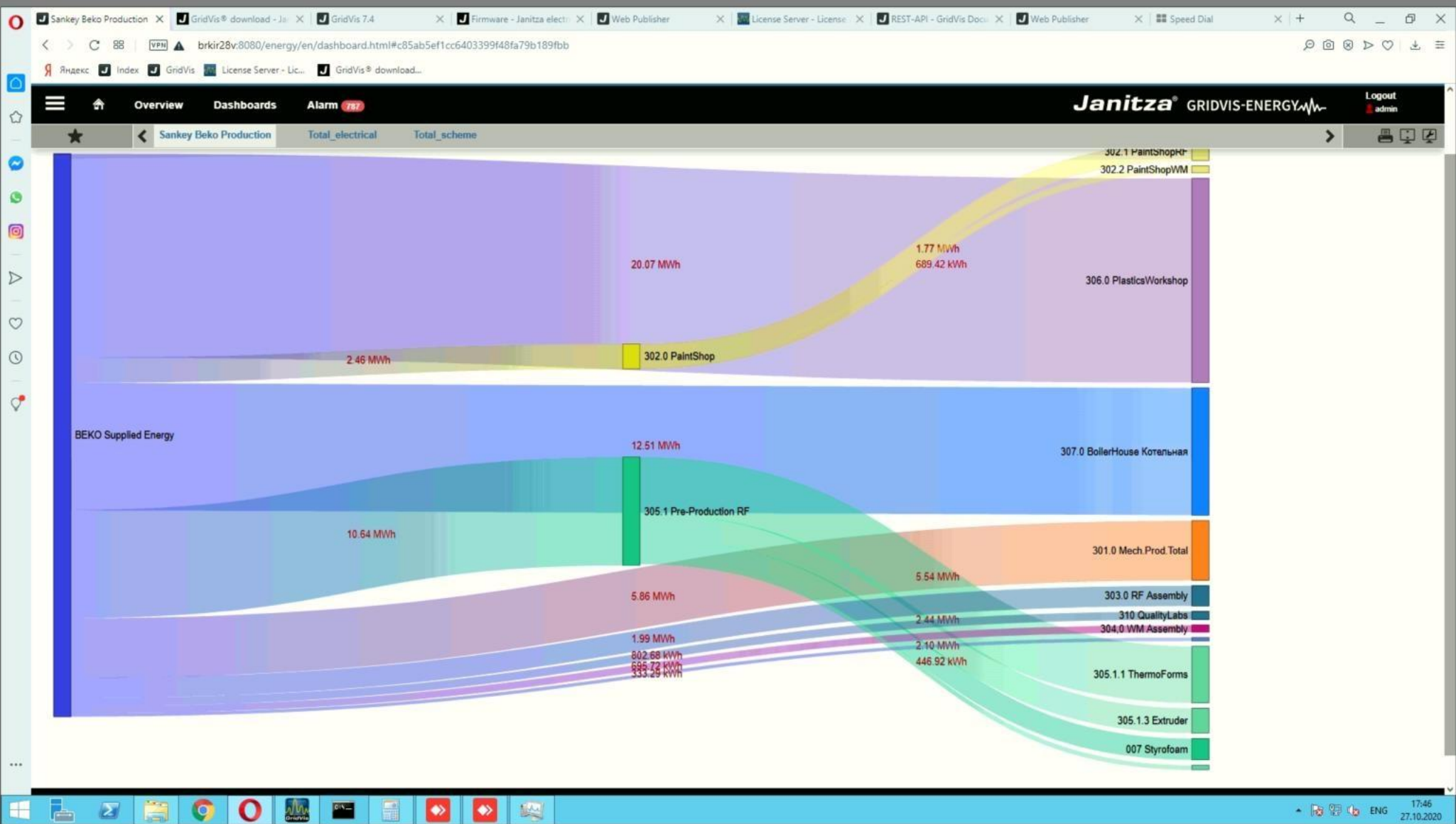
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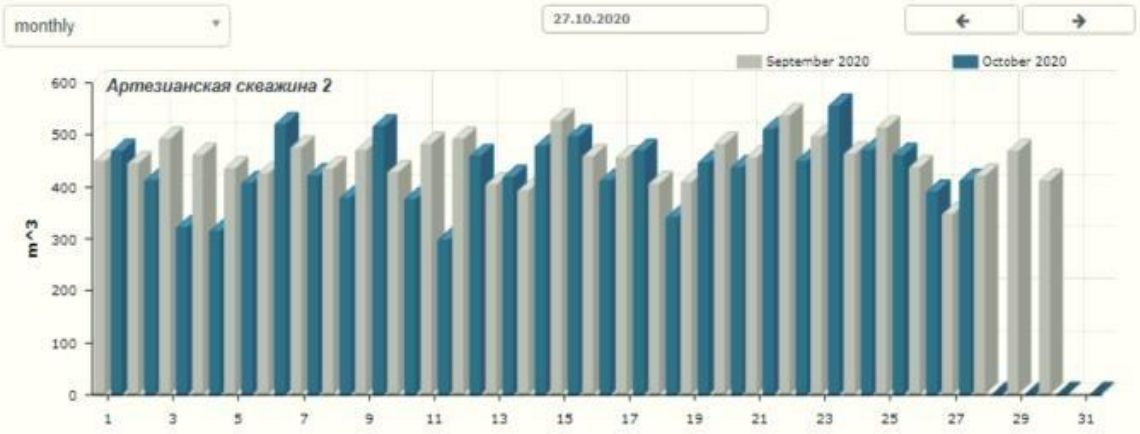
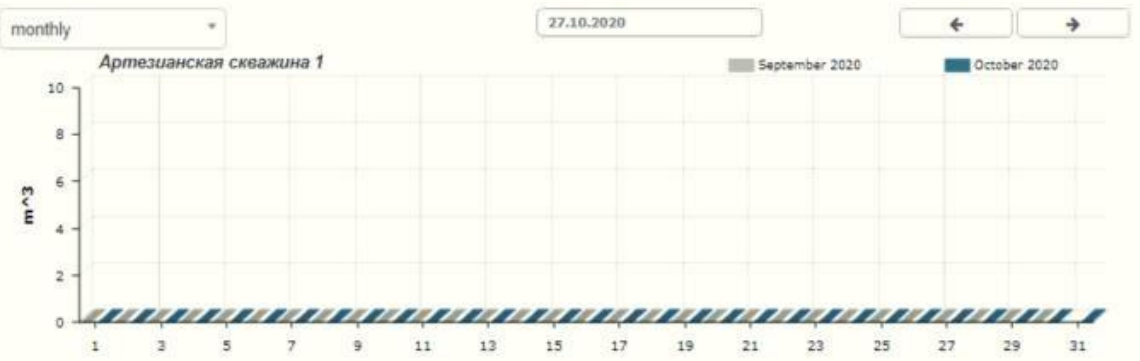
October 26, 2020

>>

Active energy







Артезианская скважина 1

Day :	Energy in m³
Thu, Oct 1, 2020	0
Fri, Oct 2, 2020	0
Sat, Oct 3, 2020	0
Sun, Oct 4, 2020	0
Mon, Oct 5, 2020	0
Tue, Oct 6, 2020	0
Wed, Oct 7, 2020	0
Thu, Oct 8, 2020	0
Fri, Oct 9, 2020	0
Sat, Oct 10, 2020	0
Sun, Oct 11, 2020	0
Mon, Oct 12, 2020	0
Tue, Oct 13, 2020	0
Wed, Oct 14, 2020	0
Thu, Oct 15, 2020	0
Fri, Oct 16, 2020	0
Sat, Oct 17, 2020	0
Sun, Oct 18, 2020	0
Mon, Oct 19, 2020	0
Tue, Oct 20, 2020	0

Артезианская скважина 2

Day :	Energy in m³
Thu, Oct 1, 2020	468.8
Fri, Oct 2, 2020	410
Sat, Oct 3, 2020	321.4
Sun, Oct 4, 2020	314.4
Mon, Oct 5, 2020	405.4
Tue, Oct 6, 2020	519.4
Wed, Oct 7, 2020	421
Thu, Oct 8, 2020	378.7
Fri, Oct 9, 2020	515.2
Sat, Oct 10, 2020	374.7
Sun, Oct 11, 2020	297.8
Mon, Oct 12, 2020	459.4
Tue, Oct 13, 2020	418.4
Wed, Oct 14, 2020	476.3
Thu, Oct 15, 2020	495
Fri, Oct 16, 2020	410.5
Sat, Oct 17, 2020	468.8
Sun, Oct 18, 2020	339.1
Mon, Oct 19, 2020	446.9
Tue, Oct 20, 2020	0

Temperature | Overview | Dashboards | Alarm **over** | Janitza® GRIDVIS-ENERGY | Logout admin

Temperature

112 WM_Assembly Line_LOOP | Temperature External temperature 1

27.50 °C
25.00 °C
22.50 °C
20.00 °C

8 Oct 10 Oct 12 Oct 14 Oct 16 Oct 18 Oct 20 Oct 22 Oct 24 Oct 26 Oct 28 Oct 30 Oct 1 Nov

26.48 °C

10/06/2020 - 11/02/2020

Period: weekly

Choose a reference date: 10/20/2020

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
21. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
22. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
23. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
24. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
25. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
26. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
27. Oct. 2020	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

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Natural_Gas_m³ | Overview | Dashboards | Alarm **2/2** | Janitza® GRIDVIS-ENERGY | Logout admin

Day : Energy in m³

Day	Energy in m ³
Thu, Oct 1, 2020	9517
Fri, Oct 2, 2020	9010
Sat, Oct 3, 2020	6243
Sun, Oct 4, 2020	2413
Mon, Oct 5, 2020	8931
Tue, Oct 6, 2020	10061
Wed, Oct 7, 2020	9928
Thu, Oct 8, 2020	10183
Fri, Oct 9, 2020	10067
Sat, Oct 10, 2020	8029
Sun, Oct 11, 2020	3123
Mon, Oct 12, 2020	9004
Tue, Oct 13, 2020	10895
Wed, Oct 14, 2020	10211
Thu, Oct 15, 2020	9964
Fri, Oct 16, 2020	9000
Sat, Oct 17, 2020	10218
Sun, Oct 18, 2020	4257
Mon, Oct 19, 2020	10253
Tue, Oct 20, 2020	13145
Wed, Oct 21, 2020	13853
Thu, Oct 22, 2020	14024
Fri, Oct 23, 2020	12793
Sat, Oct 24, 2020	13174
Sun, Oct 25, 2020	6938
Mon, Oct 26, 2020	10596
Tue, Oct 27, 2020	9075
Wed, Oct 28, 2020	-
Thu, Oct 29, 2020	-
Fri, Oct 30, 2020	-
Sat, Oct 31, 2020	-

Period: monthly | Choose a reference date: 27.10.2020

Legend: September 2020 (light grey), October 2020 (dark blue)

Project Details

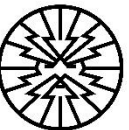
20.08.2020

Utilization_Report

Information	
Timerange	10.08.2020 - 17.08.2020
Devices	10
Groups	1
Measurements	Average (AVG)
Violations	0

Workload Ranking					
Device	Workload	Current MAX	Threshold	Reserve	
1. 004 TP 1 - TR2	39%	1155,90 A	3000,00 A	1844,10 A	
2. 014 TP 2 -TR 4	33%	1001,23 A	3000,00 A	1998,77 A	
3. 003 TP 1 - TR1	10%	314,24 A	3000,00 A	2685,76 A	
4. 012 Feeder 1030	3%	79,48 A	3000,00 A	2920,52 A	
5. 001 Feeder 1004	2%	56,55 A	3000,00 A	2943,45 A	

Device Description	Feeder					Phases				Power			Active Energy	Fuse
	Workload	Current MAX	Threshold	Reserve	L1	L2	L3	N	Cos phi	Active Power	Apparent Power	Reactive Power		
011 Feeder 1020	0%	0,00 A	3000,00 A	3000,00 A	0,00 A	0,00 A	0,00 A	0,00 A	0,00	222,17 kW	0,00 kVA	0,00 kVAr	37319 kWh	3000 A
012 Feeder 1030	3%	79,48 A	3000,00 A	2920,52 A	73,69 A	79,48 A	75,93 A	0,00 A	0,99	1316,72 kW	0,00 kVA	193,59 kVAr	221156 kWh	3000 A
001 Feeder 1004	2%	56,55 A	3000,00 A	2943,45 A	56,55 A	53,78 A	54,52 A	0,00 A	0,99	958,78 kW	0,00 kVA	6,81 kVAr	161002 kWh	3000 A
002 Feeder 1013	0%	0,00 A	3000,00 A	3000,00 A	0,00 A	0,00 A	0,00 A	0,00 A	0,00	973,35 kW	0,00 kVA	0,00 kVAr	163468 kWh	3000 A
003 TP 1 - TR1	10%	314,24 A	3000,00 A	2685,76 A	292,39 A	314,24 A	312,39 A	0,00 A	0,99	201,79 kW	0,00 kVA	-4,18 kVAr	44944 kWh	3000 A
004 TP 1 - TR2	39%	1155,90 A	3000,00 A	1844,10 A	1155,44 A	1155,90 A	1071,41 A	0,00 A	1,00	741,37 kW	0,00 kVA	28,77 kVAr	113254 kWh	3000 A
013 TP 2 -TR 3	0%	0,00 A	3000,00 A	3000,00 A	0,00 A	0,00 A	0,00 A	0,00 A	0,00	232,10 kW	0,00 kVA	0,00 kVAr	41055 kWh	3000 A
014 TP 2 -TR 4	33%	1001,23 A	3000,00 A	1998,77 A	1001,23 A	999,02 A	925,66 A	0,00 A	1,00	652,95 kW	0,00 kVA	-13,27 kVAr	109197 kWh	3000 A
029 TP 3 - TR7	0%	0,00 A	3000,00 A	3000,00 A	0,00 A	0,00 A	0,00 A	0,00 A	0,00	492,30 kW	0,00 kVA	0,00 kVAr	82774 kWh	3000 A
028 TP 3 - TR6	0%	0,00 A	3000,00 A	3000,00 A	0,00 A	0,00 A	0,00 A	0,00 A	0,00	439,28 kW	0,00 kVA	0,00 kVAr	73795 kWh	3000 A
Total sum					2579,32 A	2602,41 A	2439,91 A	0,00 A		6230,83 kW	0,00 kVA	211,72 kVAr	1047965 kWh	

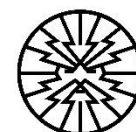


Annual energy cost and energy consumption

Name: BEKO

Company: BEKO LLC

	Unit	January	February	March	April	May	June	July	August	September	October	November	December	Total
001 Press_LK_Cabinet_WM Consumed Active Energy Total Tariff Sum L1-L3	kWh	0.00	0.00	0.00	0.00	0.00	0.00	1.84	1.84	1.84	1.84	0.00	0.00	7.56
003 HydroStation_Cabinet_WM Consumed Active Energy Total Tariff Sum L1-L3	kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.00	41.00	41.00	0.00	0.00	164.00
004 MechPress_1_Aida_Cabinet_WM Consumed Active Energy Total Tariff Sum L1-L3	kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	0.00	0.00	12.00
005 Gidropress_1_WM Consumed Active Energy Total Tariff Sum L1-L3	kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	0.00	0.00	12.00
006 Gidropress_2_WM Consumed Active Energy Total Tariff Sum L1-L3	kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	0.00	0.00	12.00
007 PanelLine_Beretta_RF Consumed Active Energy Total Tariff Sum L1-L3	kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	4.00

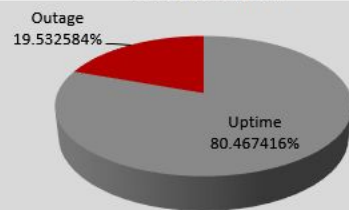


UpTimeReport

Information

Type	Monthly Report
Period	Jun 2020 / Jul 2020
Total Seconds	2 592 000,0 Sec.
Uptime	2 085 715,425 Sec.
Outage	506 284,575 Sec.
Simultaneous Events	14
Total Events	20
Total Devices	4
Phases	L1 L2 L3
MTBF Total	1d 4h 58m
MTTR Total	7h 1m 54s

Total Uptime (in %)

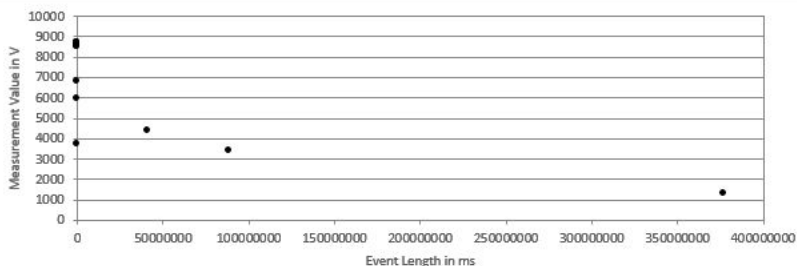


Ranking

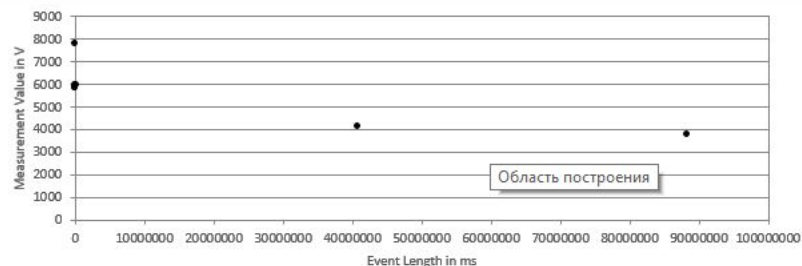
Device	Events	Uptime (in %)	Uptime	Outage (in %)	Outage	MTBF	MTTR
1. 001 Feeder 1004	15	85,45722242 %	2 215 051,205 Sec.	14,54277758 %	376 948,795 Sec.	1d 17h 1m	6h 58m 49s
2. 002 Feeder 1013	5	95,01019367 %	2 462 664,220 Sec.	4,98980633 %	129 335,780 Sec.	5d 16h 48m	7h 11m 7s
3. 011 Feeder 1020	0	100,00000000 %	2 592 000,0 Sec.	0,00000000 %	0,0 Sec.	0s	0s
4. 012 Feeder 1030	0	100,00000000 %	2 592 000,0 Sec.	0,00000000 %	0,0 Sec.	0s	0s

XY Diagram

L2:

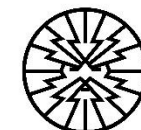


L3:



Outage Matrix

Device	Total			Day																											Passed					
	Count	MTBF	MTTR	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		25	26	27		
001 Feeder 1004	15	1d 17h 1m	6h 58m 49s												15																					No
002 Feeder 1013	5	5d 16h 48m	7h 11m 7s														2	2														1			No	
011 Feeder 1020	0	0s	0s																																Yes	
012 Feeder 1030	0	0s	0s																																Yes	



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