



Airport Information Broker Solution

Delta Airlines Case

Energiforum 25/3 – 27/3, 2025.

Henrik Clausen, Heptagon.



Delta Airlines Vision:

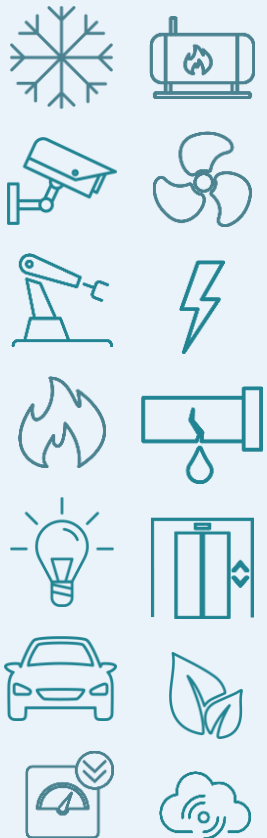
At skabe en "Information broker" der kan samle og udveksle data mellem alle lufthavnens tekniske systemer.

Det er ikke formålet at erstatte eksisterende systemer

"Information broker" skal fungere som et overliggende system og integrere med alle eksisterende systemer

Delta Airlines har valgt ICONICS

Sensors and Equipment



Building Systems



Open Protocols



Centralized, Uniform Platform delivered on a Single Pane of Glass



Smart Airport – Single Pane of Glass

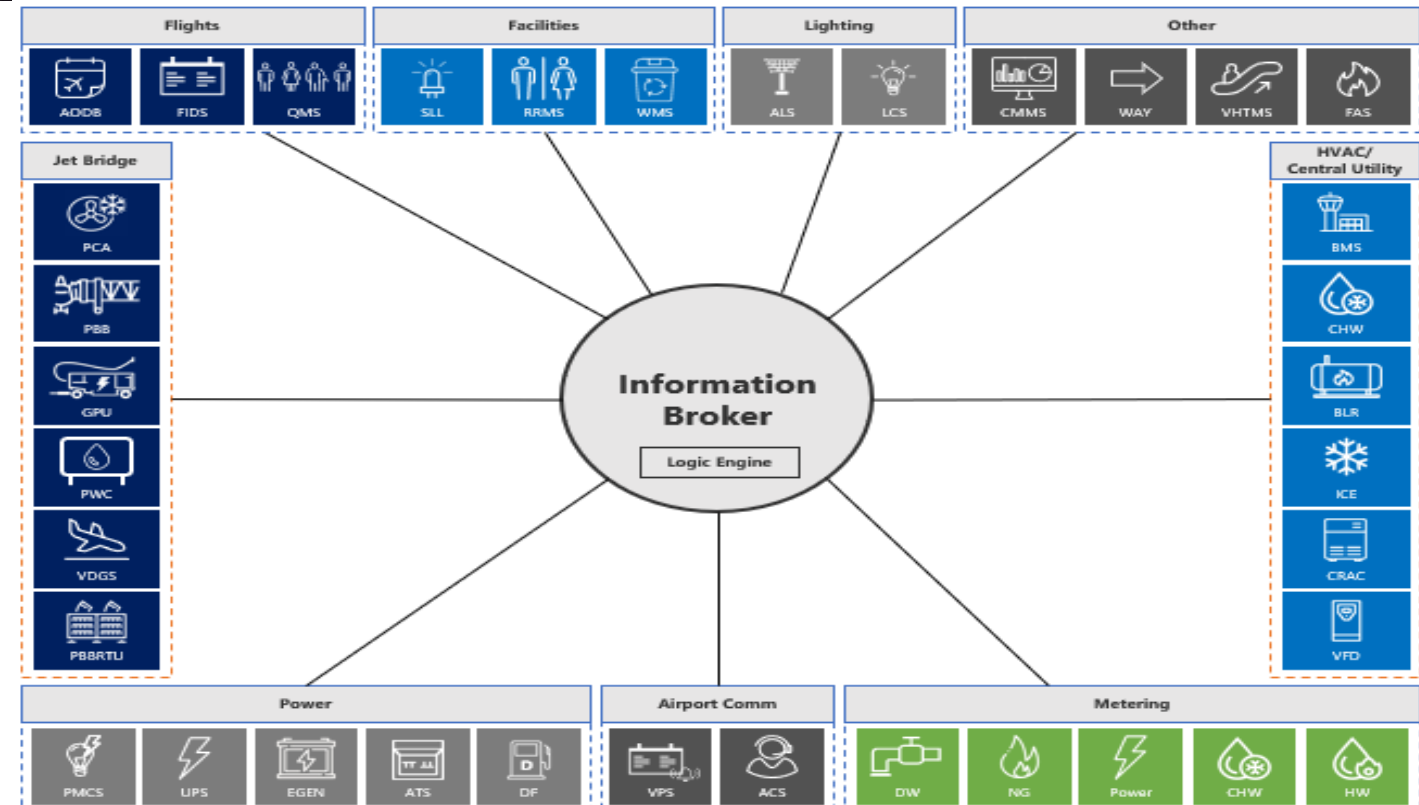
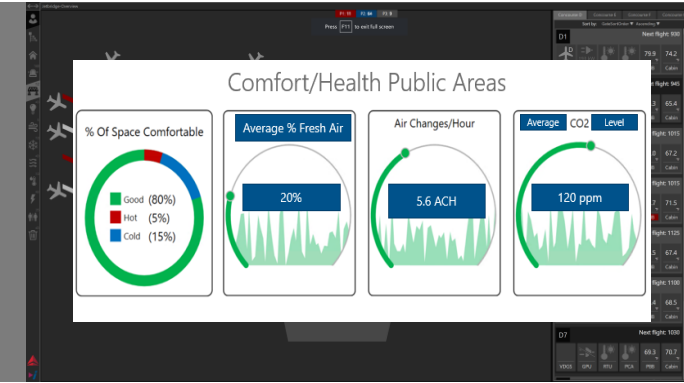
Universal Connectivity, Command and Control

- HVAC
- Lighting
- Power Distribution
- Data Center
- Elevators
- Moving Walkway
- People Movers
- Baggage Handling
- Radar Systems
- Fuel Systems
- Ramp Management
- Runway Lighting
- Fire Extinguishers
- Restroom Cleanliness
- Waste Bins
- Parking Lot Management
- Wayfinding Integration
- Digital Signage
- Passenger Messaging
- Water Treatment
- Fire & Security
- Sprinkler Systems



ICONICS Suite

- Unified User Interface
- Interoperability with 32+ Vendors
- Control from Terminal Operations Ctr
- Automated Workflow
- Real-time Integrated Dashboards
- Hybrid Redundancy





Home



912 Alarms



Overview



Floor Plan



13 Chilled Water



110 Electrical



20 Fire



Forecasts



Heating HW



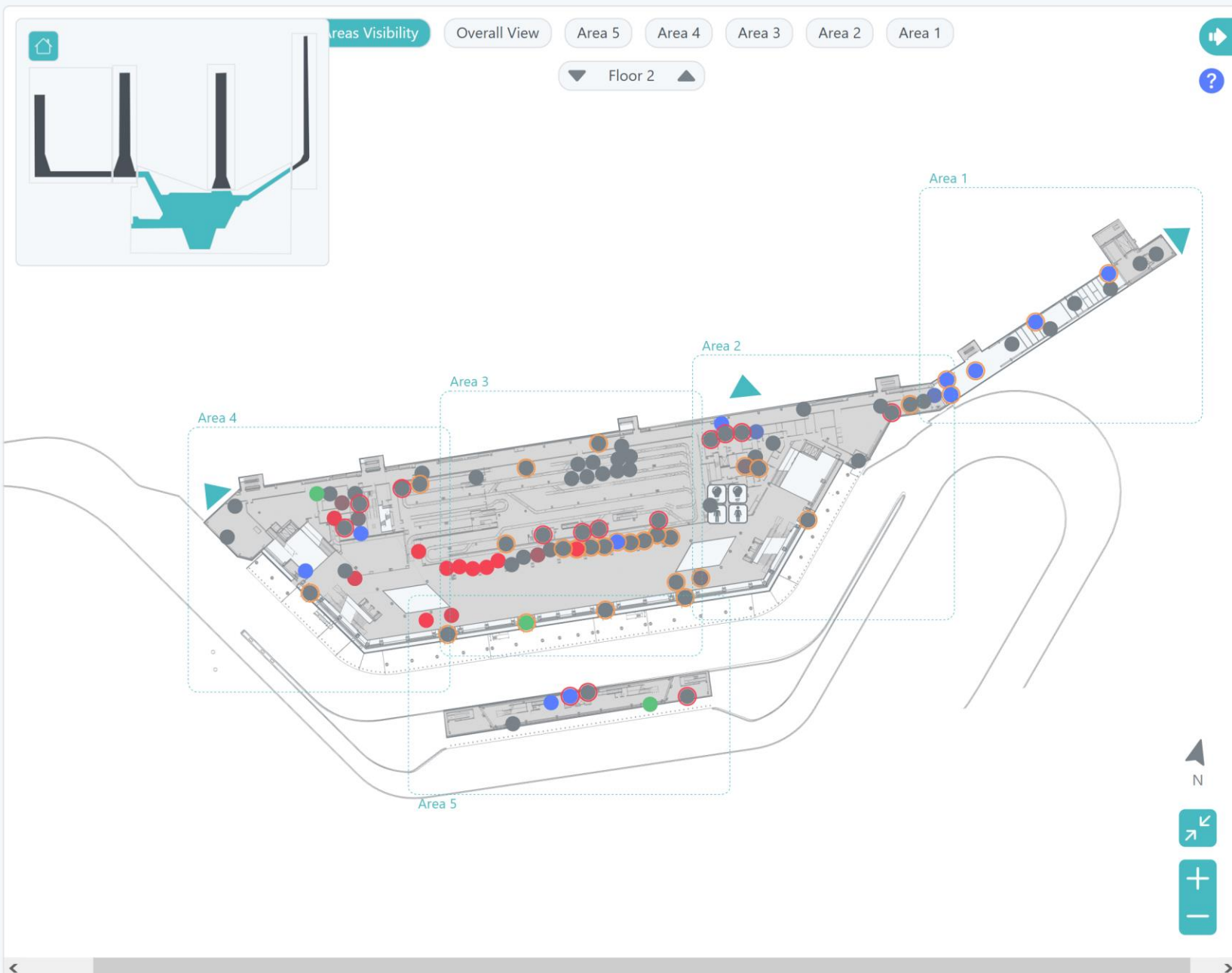
254 HVAC



205 Jetbridge



9 Lights

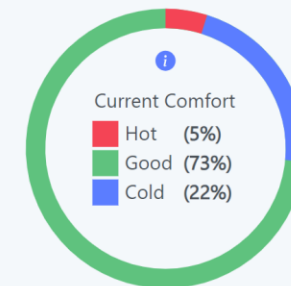
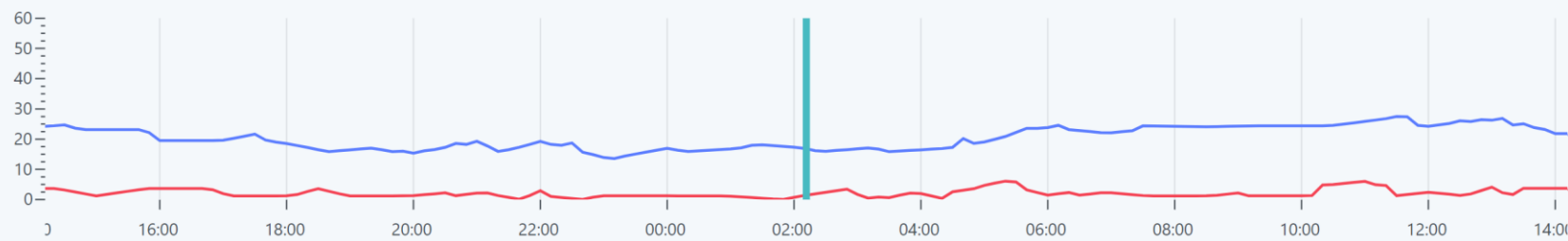


- Home
- Alarms 841
- Overview
- Floor Plan
- Chilled Water 10
- Electrical 114
- Fire 19
- Forecasts
- Heating HW
- HVAC 229
- Jetbridge 200
- Lights 9
- Public Address 22
- Queue Monitoring

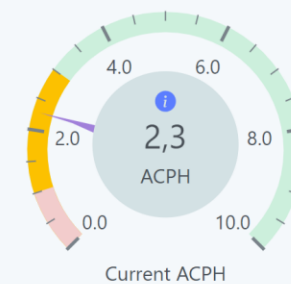
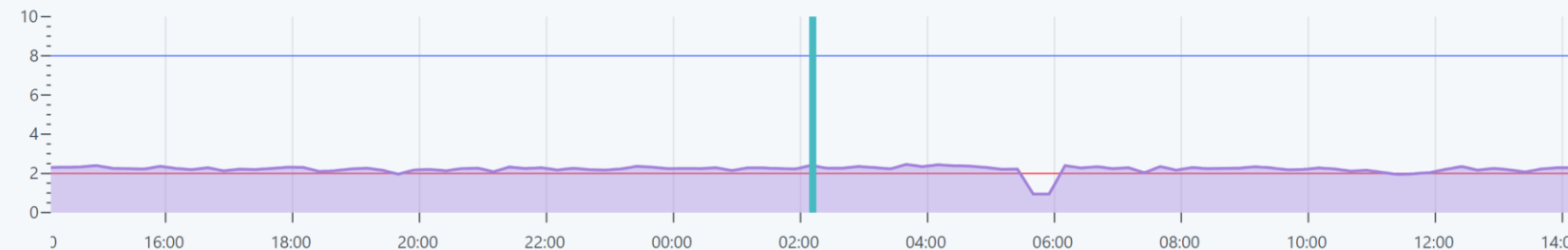
Terminal C Concourse D Concourse E Concourse F Concourse G Headhouse

30 Min. 1 Hour 2 Hours 8 Hours 1 Day 1 Week 2 Weeks 1 Month

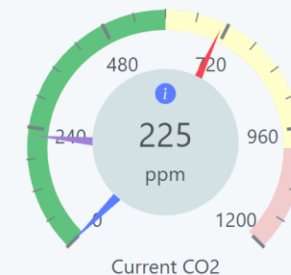
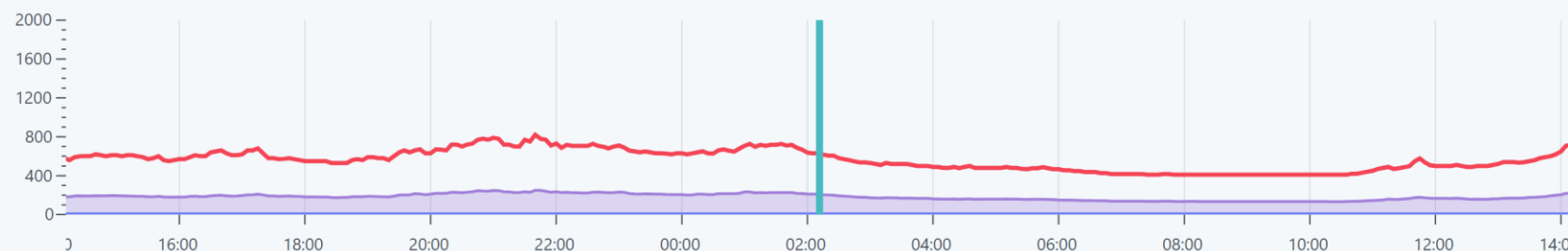
Percentage Of Space Comfortable



Ventilation Air Changes Per Hour



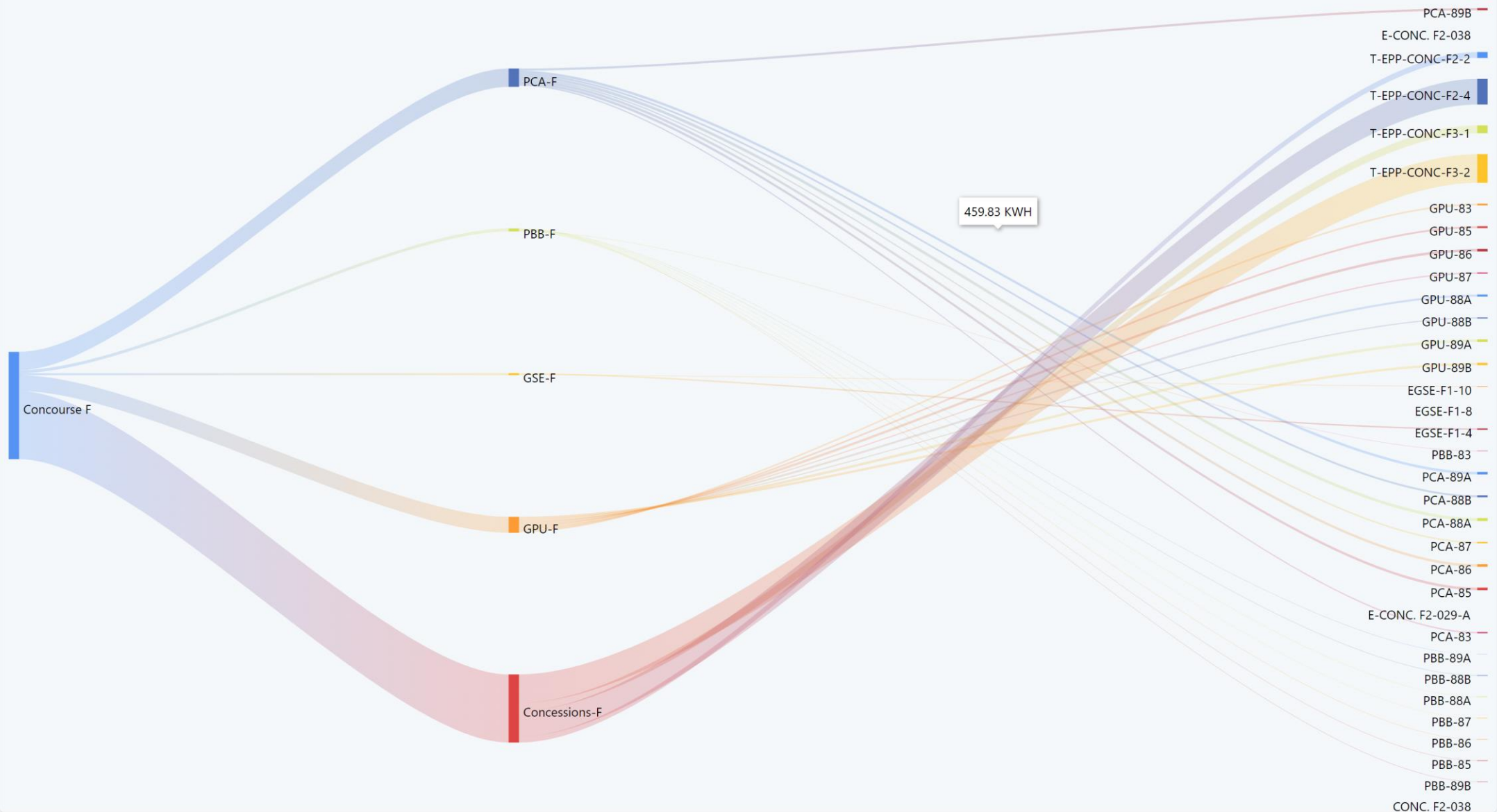
CO2 Levels (ppm)



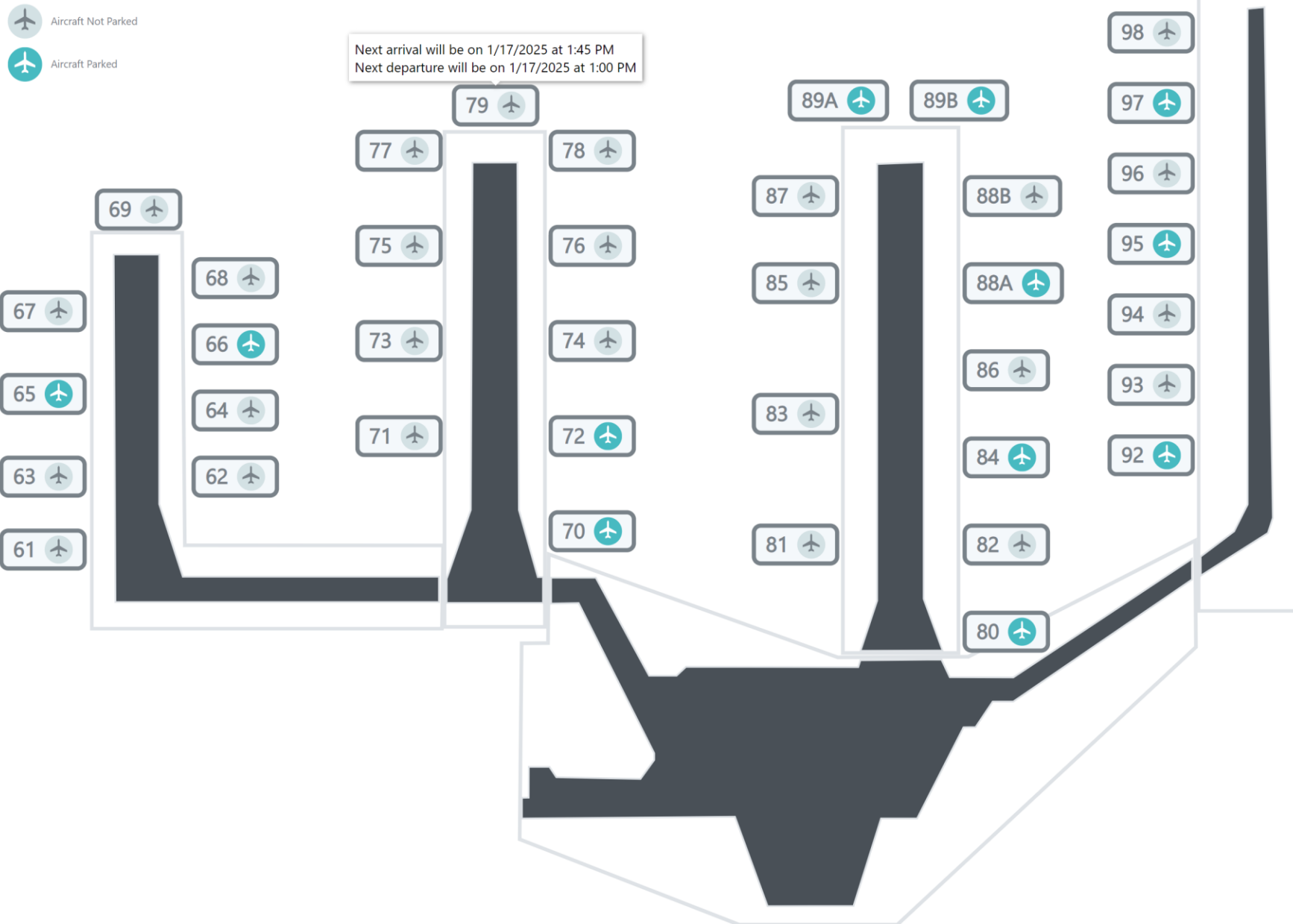
- Home
- Alarms 816
- Overview
- Floor Plan
- Chilled Water 10
- Electrical 114
- Fire 19
- Forecasts
- Heating HW
- HVAC 231
- Jetbridge 177
- Lights 9
- Public Address 21
- Queue Monitoring

Terminal C Concourse D Concourse E Concourse F Concourse G Headhouse 1-12-25 00:00 1-19-25 00:00 Last Month This Month Last Week This Week Yesterday Today Apply

Total Consumption (kWh)



- Home
- Alarms 812
- Overview
- Floor Plan
- Chilled Water 10
- Electrical 114
- Fire 19
- Forecasts
- Heating HW
- HVAC 232
- Jetbridge 173
- Lights 9
- Public Address 20
- Queue Monitoring



Concourse D	Concourse E	Concourse F	Concourse G	Headhouse	Flt
CHRP Above Gate 97 Active Scene					1
CHRP Above Gate 97 L13					80 % 
Closet 19 CHRP Active Scene					0
Closet 19 CHRP L13					OFF 
Concourse Circulation Gate 92 - 93 Active Scene					103
Concourse Circulation Gate 92 - 93 Loop 4 C1 E...					30 % 
Concourse Circulation Gate 92 - 93 Loop 4 C1 N...					30 % 
Concourse Circulation Gate 92 - 93 Loop 4 East ...					60 % 
Concourse Circulation Gate 92 - 93 Loop 4 West...					60 % 
Concourse Circulation Gate 92 - 93 Loop 2 C1 N...					30 % 
Concourse Circulation Gate 92 - 93 Loop 2 East ...					60 % 
Concourse Circulation Gate 92 - 93 Loop 4 C1 E...					30 % 
Concourse Circulation GC2-048 Phase 6 South Active Scene					5
Closet 13 CHRP Active Scene					1
Closet 13 CHRP L13					80 % 
Concourse Circulation G2-004 Active Scene					102
Concourse Circulation G2-004 C1 - EM					70 % 
Concourse Circulation G2-004 C1 - Normal					70 % 
Concourse Circulation G2-004 Cove East					70 % 
Concourse Circulation G2-004 Cove West					50 % 
Concourse Circulation GC2-048 North Active Scene					1
Concourse Circulation GC2-048 North West Cove					45 % 
Concourse Circulation GC2-048 North C1A EM					55 % 
Concourse Circulation GC2-048 North C1A Normal					55 % 
Concourse Circulation GC2-048 North East Cove					45 % 
Concourse Circulation GC2-048 South Active Scene					1



Home

Alarms

Overview

Floor Plan

Chilled Water

Electrical

Fire

Forecasts

Heating HW

HVAC

Jetbridge

Lights

918

13

110

20

255

205

9

iconics

© 2025

LGA | Alarms

1 (0 new)

112 (42 new)

805 (741 new)

State: All Acknowledged Unacknowledged

Priority: All 1 2 3 4 5

Realtime

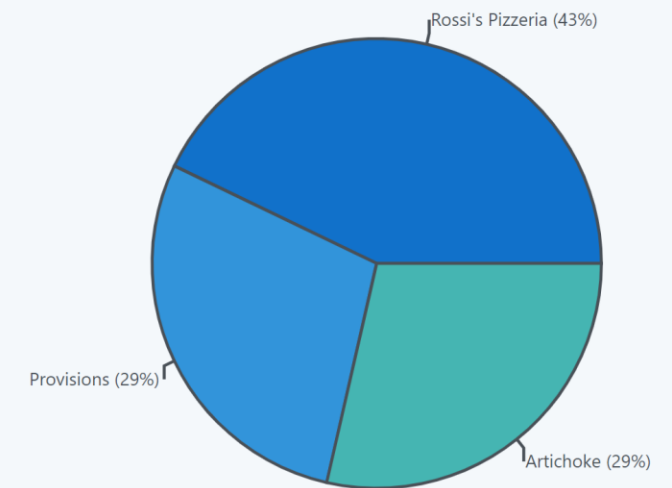
Historical

Active Time		Details (click)	Acknowledge (click)	State	Equipment Name	Alarm Name	Message
9-1-2025 03:47		Details	Acknowledge	Active	SmpPmp-E1-06	Water High Alm	Water High Alarm (service elevator)
9-1-2025 03:47		Details	Acknowledge	Active	SEPSys-HH1-03-04	High Well Level Alm	High Well Level Alarm
9-1-2025 03:24		Details	Acknowledge	Active	SEPSys-CCE-01	Comm Fail Alm	Communication Fail Alarm
9-1-2025 03:08		Details	Acknowledge	Active	SEP-HH1-02-01-01	Over Temp Moisture Alm	Over Temperature Moisture Alarm
9-1-2025 02:06		Details	Acknowledge	Active	CH-G3-04	Purge Comp Relay Alm	Purge Compressor Relay Alarm
9-1-2025 01:40		Details	Acknowledge	Active	SEP-F1-01-02	Fault Alm	High Well Level Alarm
9-1-2025 01:40		Details	Acknowledge	Active	SEPSys-CCF-01	High Well Level Alm	High Well Level Alarm
9-1-2025 01:40		Details	Acknowledge	Active	SEP-F1-01-01	Fault Alm	High Well Level Alarm
8-1-2025 19:06		Details	Acknowledge	Active	CH-G3-03	Ch Alm	Chiller Alarm
8-1-2025 15:45		Details	Acknowledge	Active	CH-G3-03	Purge Liquid Level Hi Cont Purge Alm	Purge Liquid Level Too High Continuously Purge Alarm
8-1-2025 15:12		Details	Acknowledge	Active	CH-G3-03	AFD Comm Loss: Main Processor Alm	Digital Alarm
8-1-2025 15:10		Details	Acknowledge	Active	CH-G3-03	Alm Present Alm	Alarm Present Alarm
8-1-2025 15:10		Details	Acknowledge	Active	CH-G3-03	Mechanical Failure Alm	Mechanical Failure Alarm
7-1-2025 11:26		Details	Acknowledge	Active	MOD-HH1-153-VEA01-Alert-6-85	Supvsry	Module Input Supervisory
7-1-2025 11:26		Details	Acknowledge	Active	MOD-HH1-E-Roadway-NPV-6-61	Supvsry	Module Input Supervisory
7-1-2025 11:26		Details	Acknowledge	Active	MOD-HH1-105-E-TugArea-NPV6-71	Supvsry	Module Input Supervisory
7-1-2025 11:26		Details	Acknowledge	Active	MOD-HH1-S-Roadway-NPV-6-51	Supvsry	Module Input Supervisory
7-1-2025 11:25		Details	Acknowledge	Active	MOD-GC2-046-HeatTraceMon-4-60	Supvsry	Module Input Supervisory
7-1-2025 11:25		Details	Acknowledge	Active	MOD-G1-Stair-GI-NitrogenMon1-4-46	Supvsry	Module Input Supervisory
7-1-2025 11:25		Details	Acknowledge	Active	MOD-G1-G98-NitrogenMon1-1-31	Supvsry	Module Input Supervisory
7-1-2025 05:05		Details	Acknowledge	Active	CH-G3-04	Cond Pump Control Alm	Condenser Pump Control Alarm
6-1-2025 19:50		Details	Acknowledge	Active	DUST-E1-04	Delivery Needed Alm	Delivery Needed Alarm
1-1-2025 09:45		Details	Acknowledge	Active	Hub-HH3-1532589		NETWORK Communications Alarm
24-12-2024 12:08		Details	Acknowledge	Active Acknowledged	RTU-F3-03	UPS Fail Alm	UPS Fail Alarm
23-12-2024 09:25		Details	Acknowledge	Active	PBBRTU-96	CmpLPCLocktAlm	Compressor LPC Lockout Alarm
22-12-2024 09:37		Details	Acknowledge	Active	PBBRTU-97	CmpLPCLocktAlm	Compressor LPC Lockout Alarm
21-12-2024 12:24		Details	Acknowledge	Active	PBBRTU-73	Comp LPC Lockout Alm	Compressor LPC Lockout Alarm
5-12-2024 14:03		Details	Acknowledge	Active	DDT-D1-02	High Limit Alm	High Limit Alarm
25-11-2024 06:13		Details	Acknowledge	Active	Hub-E2-1520731		NETWORK Communications Alarm
15-11-2024 09:49		Details	Acknowledge	Active Acknowledged	CHWP-G3-03-VFD	Alm Status	Alarm
14-11-2024 13:39		Details	Acknowledge	Active Acknowledged	ESC-HHCS2-01	Controller Alm	Controller Related Alarm
11-11-2024 01:11		Details	Acknowledge	Active	CT-G3-06-VFD	Alm Status	Alarm
11-11-2024 01:11		Details	Acknowledge	Active	CT-G3-02-VFD	Alm Status	Alarm
3-11-2024 06:28		Details	Acknowledge	Active	PBBRTU-72	Comp LPC Lockout Alm	Compressor LPC Lockout Alarm
31-10-2024 11:30		Details	Acknowledge	Active Acknowledged	MD-EEF301-02	Damper Fail Alm	Damper Fail Alarm

* - Secondary

jan 9 2025 - 9:47

Top 10 Points of Interests



	Sunday	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Monday	0	0	0	0	0	0	0	0	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	
	Tuesday	0	0	4	0	3	0	0	0	0	0	0	4	0	0	0	0	2	2	0	0	0	0	0	
Wednesday		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Thursday	0	0	5	16	0	1	3	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	
	Friday	0	0	0	9	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	
	Saturday	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM

257

HVAC

207

Jetbridge

9

Lights

20

Public Address

Queue Monitoring

Restrooms

34

Signage

System Health

Utilities

2

VHTMS

4

VRCS

3

Waste

ICONICS © 2025

QMS Summary View

1 (0 new)

110 (40 new)

802 (738 new)

R

Raymond

All

Check-in

Security

Taxi

Open XOVIS Dashboard

Selected Queue: None

Clear Selected Queue

Name	1	Desks	Estimated Wait (min)	Queue Length	Throughput	Desk Process Time (Per Passen...	Today's Turnover
Agent-Assist	0	0	17sec	1 Passengers	48 Passengers/hour	46 sec	897 Passengers
Clear	0	0	0sec	0 Passengers	24 Passengers/hour	31 sec	1166 Passengers
Clear-Pre-Check	0	0	4min 5sec	9 Passengers	97 Passengers/hour	16 sec	1078 Passengers
Common	7	0	1min 27sec	22 Passengers	438 Passengers/hour	16 sec	6531 Passengers
Delta-International	0	0	0sec	1 Passengers	0 Passengers/hour	260 sec	236 Passengers
Digital-ID	1	0	4sec	4 Passengers	188 Passengers/hour	0 sec	2846 Passengers
Digital-ID-Security	0	0	0sec	0 Passengers	24 Passengers/hour	0 sec	134 Passengers
Pre-Check	2	0	2min 25sec	12 Passengers	182 Passengers/hour	18 sec	3503 Passengers
Self-Baggage-Drop	0	0	13sec	2 Passengers	42 Passengers/hour	68 sec	663 Passengers
Sky-Priority	0	0	0sec	0 Passengers	0 Passengers/hour	72 sec	45 Passengers
Taxi	0	0	0sec	0 Passengers	0 Passengers/hour	0 sec	1861 Passengers
Wheel-Chair	0	0	0sec	0 Passengers	12 Passengers/hour	0 sec	175 Passengers

* - Secondary

jan 9 2025 - 10:59

903

Alarms

Overview

Floor Plan

18

Airport Comm

7

Chilled Water

83

Electrical

Energy

26

Fire

Forecasts

Heating HW

111

HVAC

189

Jetbridge

9

Lights

Queue Monitoring

14

Restrooms

2

Signage

System Health

26

VHTMS

37

Waste

© 2023

Waste Management System Summary View

Terminal C

Concourse D

Concourse E

Concourse F

Concourse G

Headhouse

Average Fullness

46 %

Total Alarms

13

Streams Total

9

Ready to Collect Total

18 / 18

High Capacity / Standard Capacity

6

12

Asset	Location	Stream Type	Capacity	% Full	Ready to Collect	Collection Reason
Hub-G2-1520726	Concourse G - In front of Gate 92	Waste	HC	0%	Ready	Alert
Compn-G2-11520726	Concourse G - In front of Gate 92	Recycling	HC	80%	Ready	Alert
Hub-G2-1520729	Concourse G - In front of Women's restroom	Waste	HC	0%	Ready	Alert
Compn-G2-11520729	Concourse G - In front of Women's restroom	Recycling	HC	60%	Ready	Alert
Hub-G2-1520742	Concourse G - In front of Men's restroom	Waste	HC	0%	Ready	Alert
Compn-G2-11520742	Concourse G - In front of Men's restroom	Recycling	HC	60%	Ready	Alert
Hub-G2-8520034	Concourse G - Between Gates 97 and 98	Waste	SC	60%	Ready	Alert
Compn-G2-18520034	Concourse G - Between Gates 97 and 98	Recycling	SC	80%	Ready	Alert
Hub-G2-8520036	Concourse G - Between Gate 95 and 96	Waste	SC	60%	Ready	Alert
Compn-G2-18520036	Concourse G - Between Gate 95 and 96	Recycling	SC	80%	Ready	Alert
Hub-G2-8520038	Concourse G - In front of Pet Relief	Waste	SC	40%	Ready	Alert
Compn-G2-18520038	Concourse G - In front of Pet Relief	Recycling	SC	80%	Ready	Alert
Hub-G2-8520040	Concourse G - Between Gate 94 and 95	Waste	SC	0%	Ready	Alert
Compn-G2-18520040	Concourse G - Between Gate 94 and 95	Recycling	SC	100%	Ready	Alert
Hub-G2-8520042	Concourse G - Between Gates 96 and 97	Waste	SC	0%	Ready	Alert
Compn-G2-18520042	Concourse G - Between Gates 96 and 97	Recycling	SC	60%	Ready	Alert
Compn-G2-18520039	Concourse G - Infront of F Connecting bridge	Recycling	SC	40%	Ready	Alert
Hub-G2-8520039	Concourse G - Infront of F Connecting bridge	Waste	SC	20%	Ready	Alert

© 2023

0 (0 new)

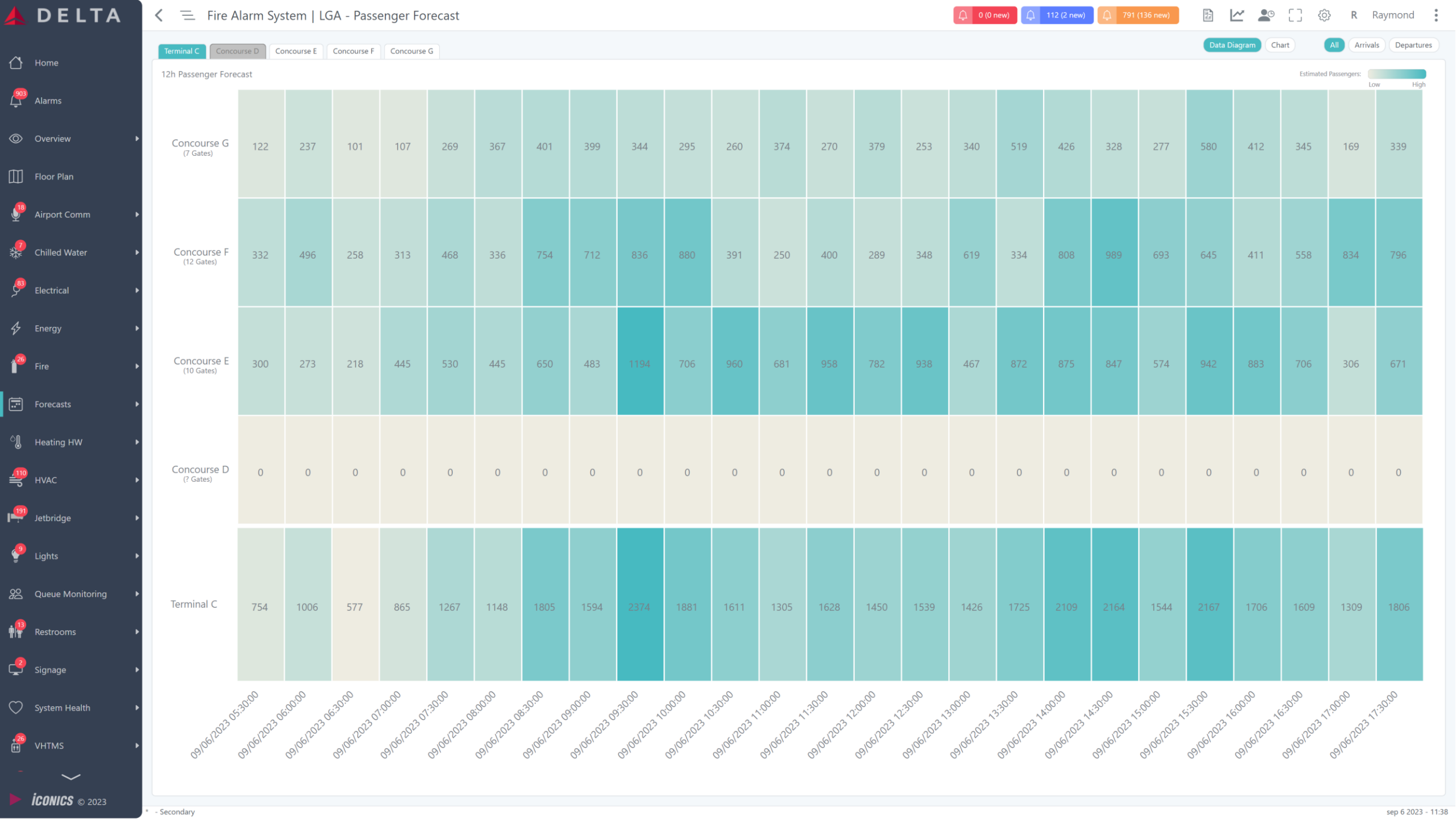
112 (2 new)

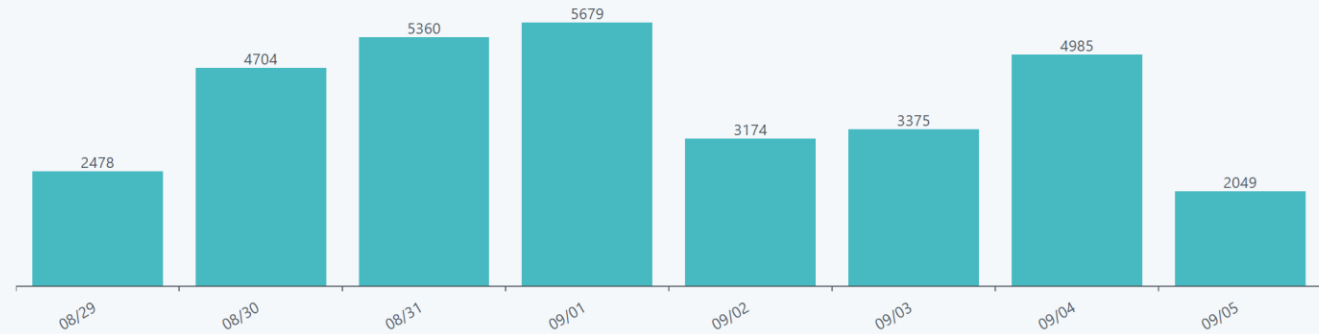
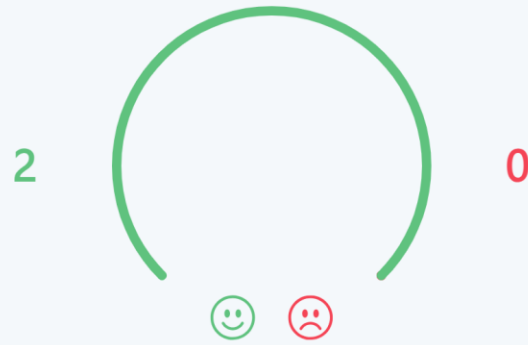
791 (136 new)

Raymond

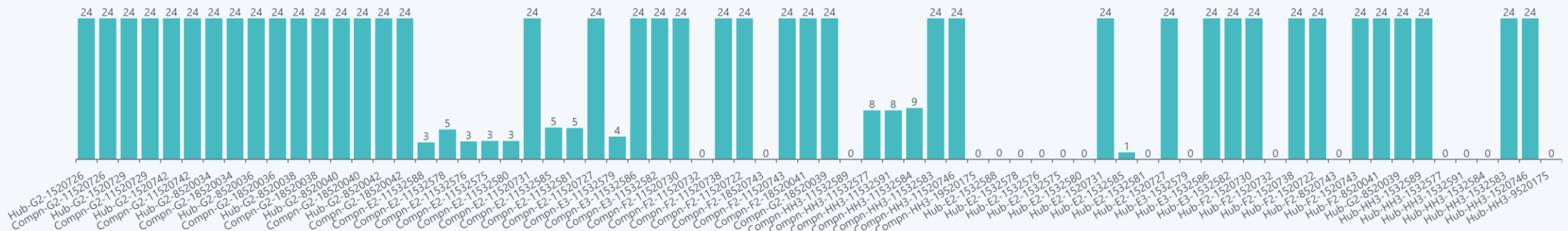
Secondary

sep 6 2023 - 11:49





Today: **21** 



Home

Alarms905

Overview

Floor Plan

Airport Comm18

Chilled Water7

Electrical83

Energy

Fire26

Forecasts

Heating HW

HVAC110

Jetbridge192

Lights9

Queue Monitoring

Restrooms13

Signage2

System Health

VHTMS26

Terminal C

ElectricNatural GasDomestic Water

Total Consumption525.773 kWh

Max DemandkW

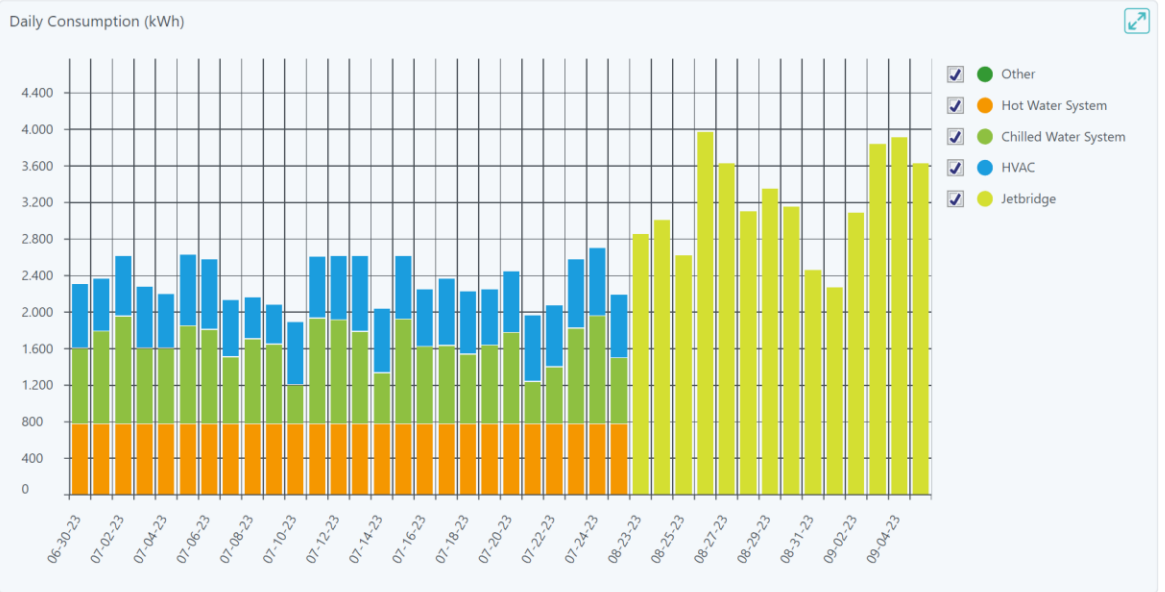
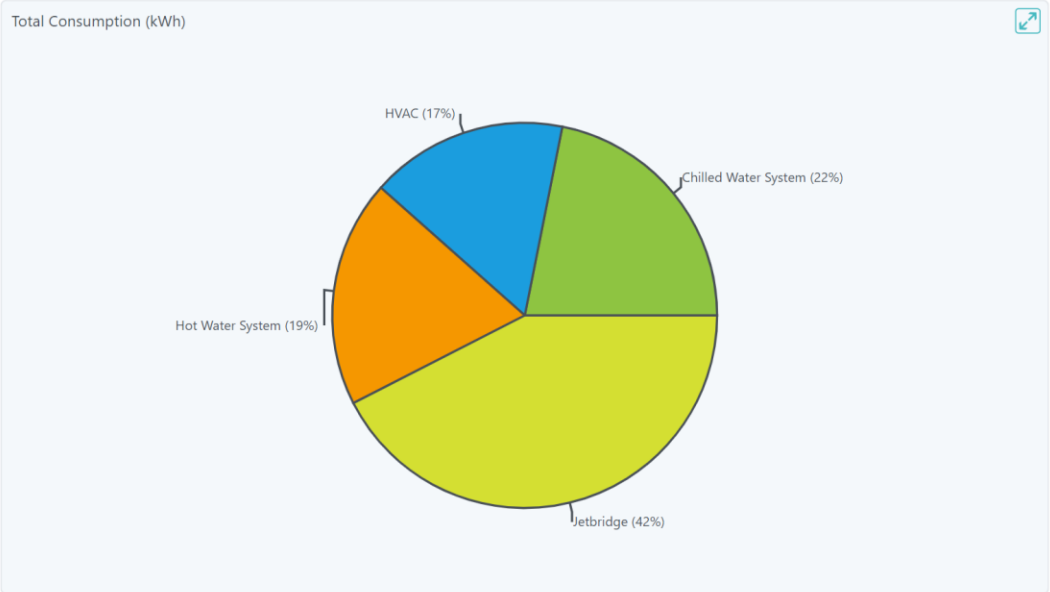
Demand Limit0 kW

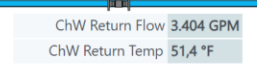
Total Consumption (kWh)

Daily Consumption (kWh)

Demand (kW) vs OAT (°F)

☒	Name	Last Value	Last Time	Cursor Value	Cursor Time	Units	Address
☒	Outside Air Tempe	78	7-9-2023	72	4-8-2023	F	ac:LGA/TC/M/HHW/HWS/G3/HWS-G3-
☒	Demand Limit	0	1-1-2022	0	1-1-2022	kW	db:MasterAssetWorX.t_DemandLimit





DELTA

Home

Alarms903

Overview

Floor Plan

Airport Comm18

Chilled Water7

Electrical63

Energy

Fire26

Forecasts

Heating HW

HVAC108

Jetbridge191

Lights9

Queue Monitoring

Restrooms14

Signage2

System Health

VHTMS26

1 Hour

8 Hours

1 Day

3 Day

1 Week

1 Month

Condensed Water Pumping Efficiency

0 (0 new)

112 (2 new)

791 (136 new)

20000

15000

10000

5000

0

100

75

50

25

0

10

4:00

4:30

5:00

5:30

6:00

6:30

7:00

7:30

8:00

8:30

9:00

9:30

10:00

10:30

11:00

11:30

Description

Last Time

Last Value

Cursor Time

Cursor Value

Units

Total Condensed Water Pump Calculated Effice

11:30

77

3:30

76

GPM Per kW

Condenser Water Differential Pressure

11:30

24,7

3:30

25,1

Pounds per Squar

Condenser Water Supply Flow

11:30

7527,9

3:30

7531,1

Gallons Per Minute

1000

750

500

250

0

100

75

50

25

0

10

4:00

4:30

5:00

5:30

6:00

6:30

7:00

7:30

8:00

8:30

9:00

9:30

10:00

10:30

11:00

11:30

CWP-G3-01

1000

750

500

250

0

100

75

50

25

0

10

4:00

4:30

5:00

5:30

6:00

6:30

7:00

7:30

8:00

8:30

9:00

9:30

10:00

10:30

11:00

11:30

CWP-G3-02

1000

750

500

250

0

100

75

50

25

0

10

4:00

4:30

5:00

5:30

6:00

6:30

7:00

7:30

8:00

8:30

9:00

9:30

10:00

10:30

11:00

11:30

CWP-G3-03

9-2-23

9-3-23

9-3-23

9-3-23

9-4-23

9-4-23

9-4-23

9-5-23

9-5-23

9-5-23

9-6-23

1 Hour

8 Hours

1 Day

3 Day

1 Week

1 Month

Secondary

sep 6 2023 - 11:30

DELTA

Home

Alarms

Overview

Floor Plan

Airport Comm

Chilled Water

Electrical

Energy

Fire

Forecasts

Heating HW

HVAC

Jetbridge

Lights

Queue Monitoring

Restrooms

Signage

System Health

VHTMS

iconics

© 2023

UPS Summary View

Terminal C

Concourse D

Concourse E

Concourse F

Concourse G

Headhouse

Name	Capacity	Alarm	Status	Percentage of Capacity	Remaining Battery [mins]	Min Out Voltage
UPS-E2-1	15 kVA		Normal	7%	829 mins	120 V
UPS-EC2-1	15 kVA		Normal	7%	982 mins	119 V
UPS-EM2-1	100 kVA		Normal	11%	336 mins	0 V
UPS-EM2-2	100 kVA		Normal	11%	336 mins	0 V
UPS-EM2-3	15 kVA		Normal	0%	1050 mins	119 V
UPS-EM2-4	15 kVA		Normal	20%	264 mins	120 V
UPS-EM2-5	60 kVA		Normal	0%	1053 mins	119 V
UPS-F2-118	20 kVA		Normal	15%	140 mins	120 V
UPS-G3-1	0 kVA			0%	0 mins	118 V
UPS-G3-2		NO COMMUNICATION				
UPS-G3-3		NO COMMUNICATION				
UPS-GC2-1	0 kVA			18%	0 mins	119 V
UPS-LS-F2-5	20 kVA		Normal	25%	314 mins	120 V
UPS-OSP-1	15 kVA		Normal	7%	982 mins	119 V

* - Secondary

sep 6 2023 - 11:32

DELTA

Home

Alarms

Overview

Floor Plan

Airport Comm

Chilled Water

Electrical

Energy

Fire

Forecasts

Heating HW

HVAC

Jetbridge

Lights

Queue Monitoring

Restrooms

Signage

System Health

VHTMS

Secondary

© 2023

Emergency Generator Overview

Terminal C

Concourse D

Concourse E

Concourse F

Concourse G

Headhouse

Emergency Generator GEN-G3-1

Status	Stopped
Battery Voltage	26,3 Volts
Oil Pressure	0,00 PSI
Oil Temperature	91,1 °F
Fuel Rate	0,0 GPH
Engine RPM	0 RPM
Engine Start	344
Engine Runtime	190,9 Hr(s)
Daily Energy Consumpti	0 kWh
Coolant Temperature	91,1 °F

Emergency Generator: no alarms active

Day Tank

Inventory Volume	190 gal
Inventory Temperature	85 °F
Inventory Water Volume	0 gal
Delivery Number Of Deliveries	1
Delivery Start Time	12-6-2023 16:10:40
Delivery Stop Time	12-6-2023 16:27:44
Delivery Starting Volume	98 gal
Delivery Starting Temperature	79 °F
Delivery Ending Volume	257 gal
Delivery Ending Temperature	73 °F
Percent Full	50 %

Day Tank:

0%25%50%75%100%

Day tank: alarms active

Storage Tank

Inventory Volume	3.542 gal
Inventory Temperature	80 °F
Inventory Water Volume	0 gal
Delivery Number Of Deliveries	1
Delivery Start Time	20-7-2023 16:10:40
Delivery Stop Time	20-7-2023 16:14:56
Delivery Starting Volume	3.321 gal
Delivery Starting Temperature	73 °F
Delivery Ending Volume	3.531 gal
Delivery Ending Temperature	73 °F
Percent Full	89 %

Storage tank: alarms active

0 (0 new)

113 (3 new)

791 (136 new)

R

Raymond

sep 6 2023 - 11:32

HealthSubSys-E | System Health

0 (0 new)

113 (3 new)

791 (136 new)

R

Raymond

Home

Alarms

Overview

Floor Plan

Airport Comm

Chilled Water

Electrical

Energy

Fire

Forecasts

Heating HW

HVAC

Jetbridge

Lights

Queue Monitoring

Restrooms

Signage

System Health

VHTMS

58

Devices Online

106

Total Devices

55 %

Percent Online

Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online
Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online
Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online	Online
Online	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline
Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline
Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Offline	Online	Online	Online	Online

100,00

75,00

50,00

25,00

0,00

12:00

13:00

14:00

15:00

16:00

17:00

18:00

19:00

20:00

21:00

22:00

23:00

00:00

01:00

02:00

03:00

04:00

05:00

06:00

07:00

08:00

09:00

10:00

11:00

30 Minutes

1 Hour

2 Hours

8 Hours

24 Hours

1 Week

1 Month

☒ Name

Last Value

Last Time

Cursor Value

Cursor Time

Units

Address

☒ Communications Percent

55

12:13

55

12:13

Percent

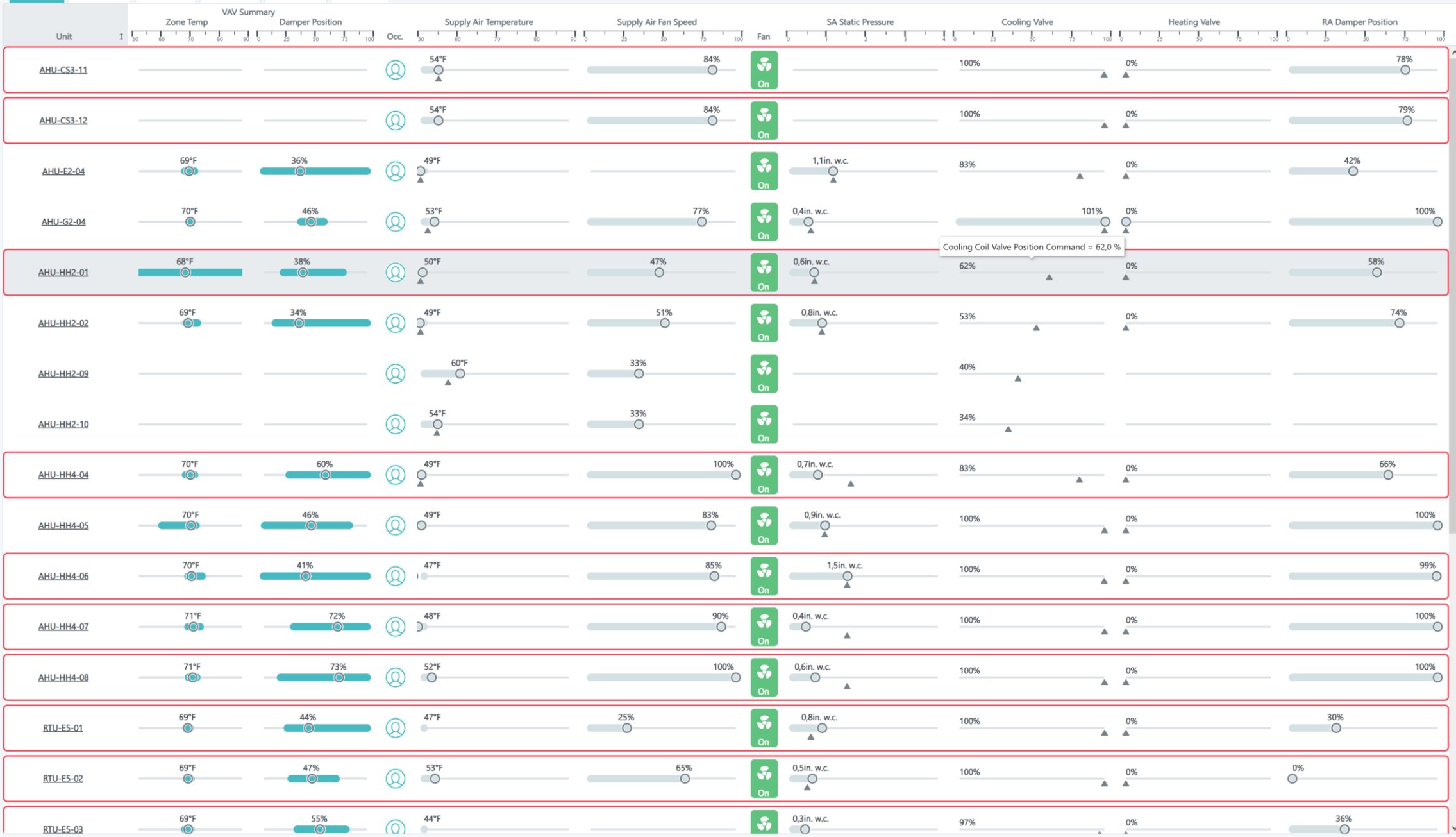
ac:LGA/TC/E/HealthSubSys-E/CommP

iconics

© 2023

- Secondary

sep 6 2023 - 11:31



LGA/TC/A/RRMS/Men/RRMSSys/HH3/RRMSSys-HH3-135-Men/



Overview Trends Point Details Alarms Faults

Overview Counts Surveys Negative Survey Details

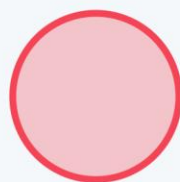
Most Recent Counts and Surveys



Last Hour Count: 0

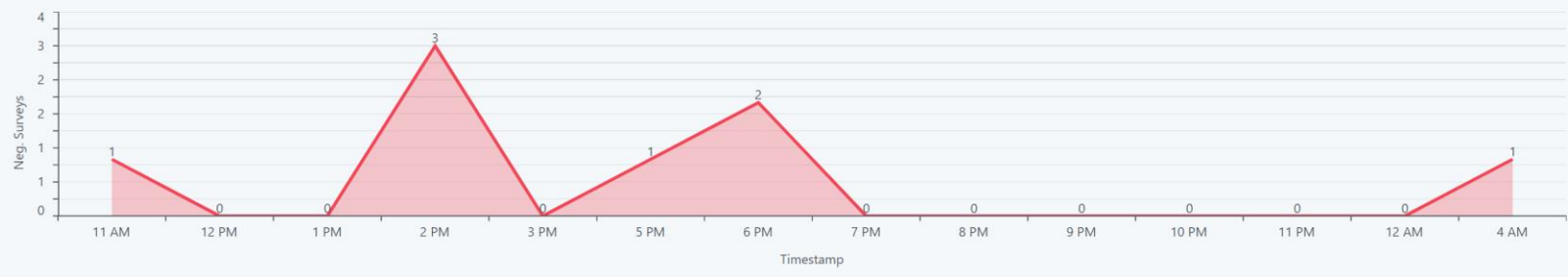


Positive: 0

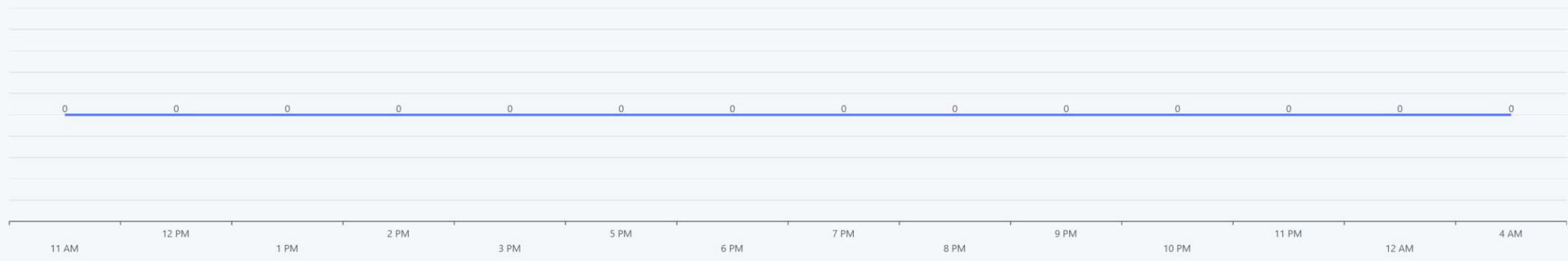


Negative: 1

Most Recent 24 Hour Surveys



Most Recent 24 Hour Total Count



- HVAC 255
- Jetbridge 207
- Lights 9
- Public Address 20
- Queue Monitoring
- Restrooms
- Signage 34
- System Health
- Utilities
- VHTMS 2
- VRCS 4
- Waste 3

RRMS Data								SLL Data	
Restroom	Location	Total Day Count		Total Hour Count		Feedback in Last Hour		Current Percent Full	
		0	375	0	25	Positive	Negative	0	25
RRMSSys-D2-116-Men		44 People		14 People		0	0	No Paper Towels	25%
RRMSSys-D2-206-Men		75 People		18 People		0	0	Smell	43%
RRMSSys-E2-013-Men		34 People		14 People		0	0	Dirty Stalls and Urinals	13%
RRMSSys-E2-036-Men		38 People		8 People		0	0	No Paper Towels	0%
RRMSSys-E3-003-Men		0 People		0 People		0	1	No Recent Feedback Given	0%
RRMSSys-F2-124-Men		40 People		15 People		0	0	No Recent Feedback Given	25%
RRMSSys-F2-155-Men		0 People		0 People		1	1	No Recent Feedback Given	0%
RRMSSys-F3-205-Men		0 People		0 People		1	0	Dirty Walls and Mirrors	50%
RRMSSys-G2-Men		27 People		4 People		0	0	No Recent Feedback Given	0%
RRMSSys-HH1-241...		138 People		31 People		0	0	Maintenance Issue	20%
RRMSSys-HH2-206...		0 People		0 People		1	0	Dirty Stalls and Urinals	50%
RRMSSys-HH3-135...		31 People		15 People		1	0	Dirty Stalls and Urinals	0%
RRMSSys-HH3-231...		0 People		0 People		1	0	No Recent Feedback Given	50%

 Concourse G Jetbridge Activity Summary

7



Køle- og fryselager. Optimering med elpriser fra Nord Pool

H. Jespersen - ICONICS Partner

Energiforum 25/3 – 27/3, 2025.

Henrik Clausen, Heptagon & Jørn Mikkelsen, H. Jespersen A/S



H. Jespersen:

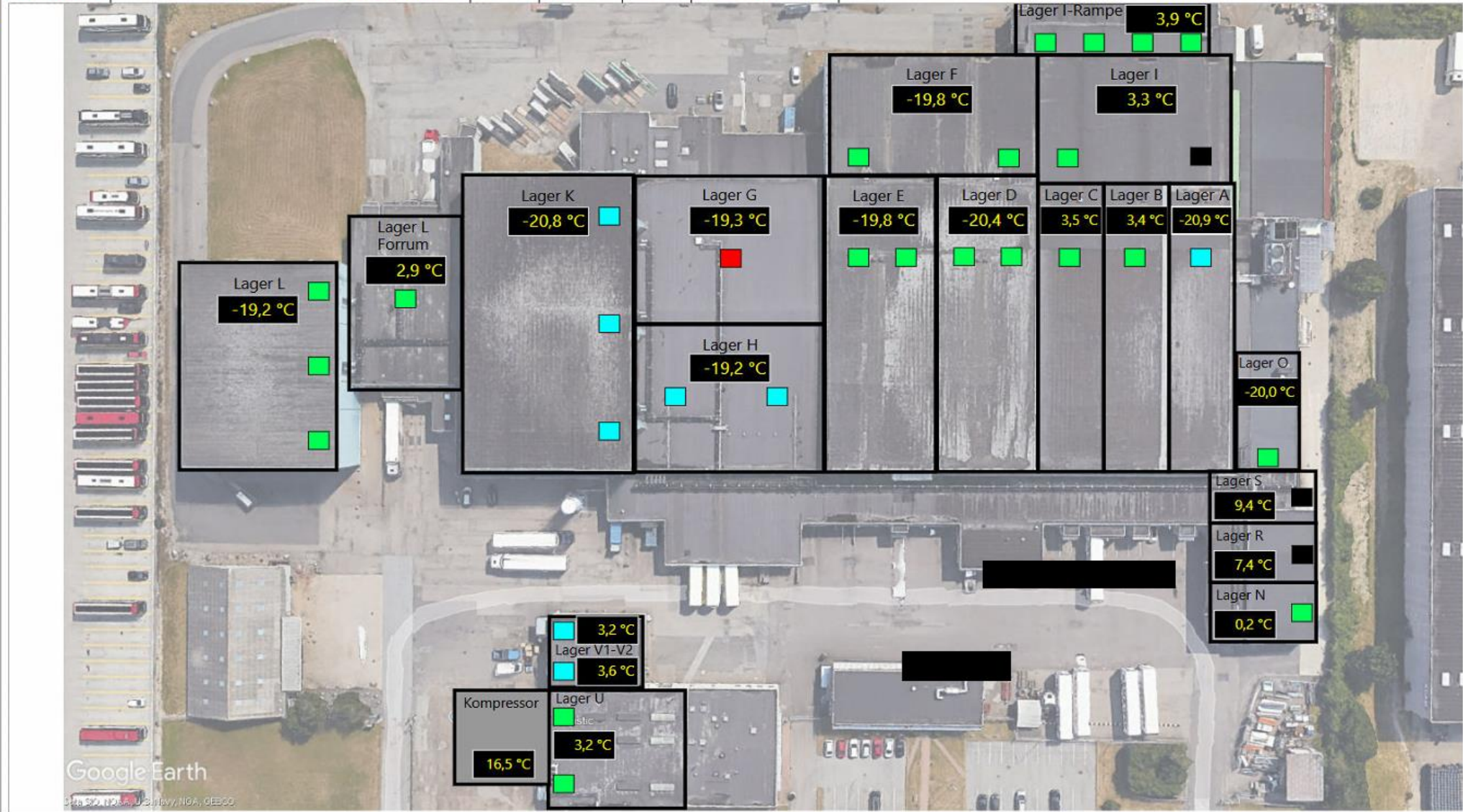
Forbinder alle systemer til én løsning,
herunder:

- WAGO Ethercat
- Siemens
- Johnson
- IT-udstyr
- Nord Pool: El-priser

H. Jespersen er ICONICS partner

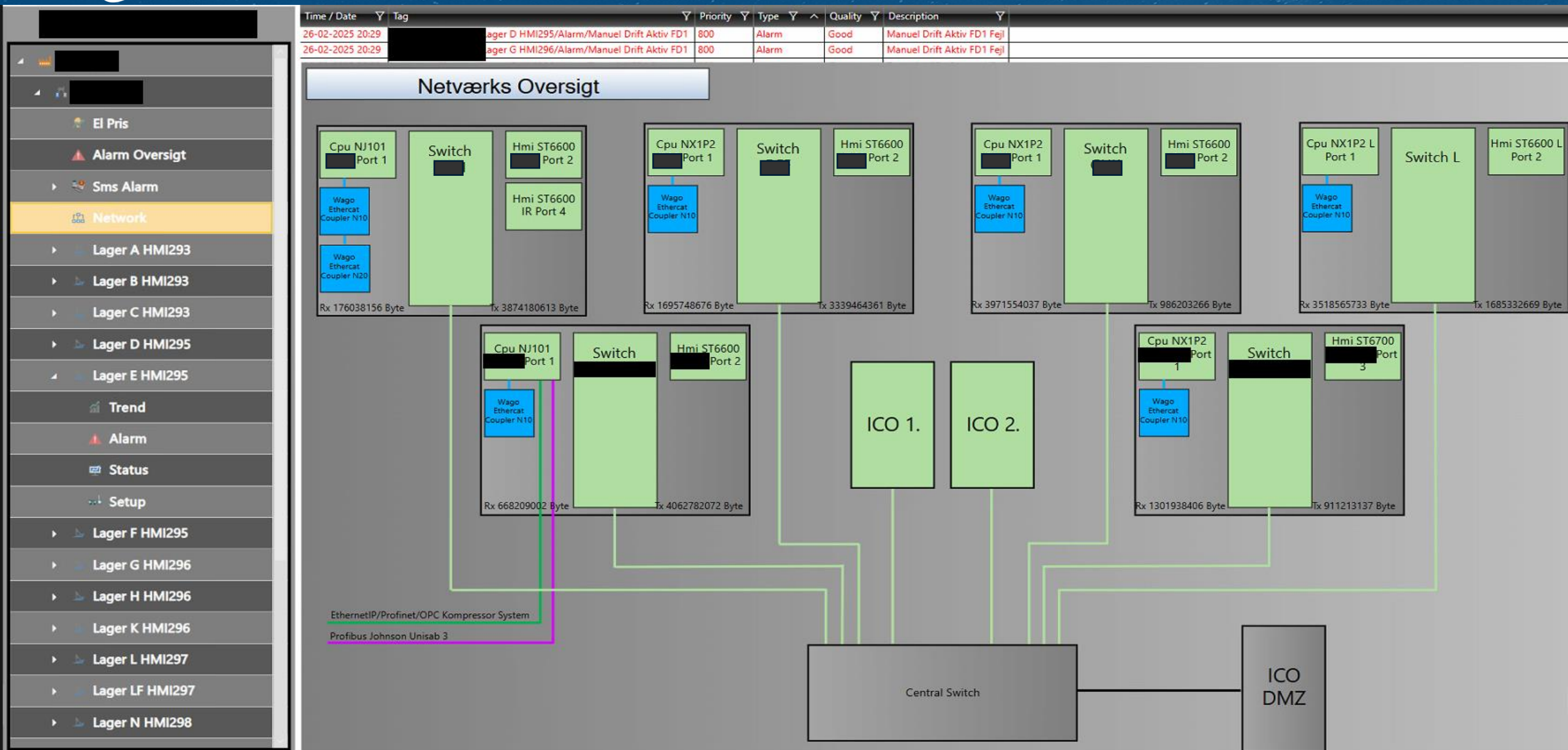
Oversigt over et site

Time / Date	Tag	Priority	Type	Quality	Description
26-02-2025 20:29		800	Alarm	Good	Manuel Drift Aktiv FD1 Fejl
26-02-2025 20:29		800	Alarm	Good	Manuel Drift Aktiv FD1 Fejl





Netværk og kommunikation med udstyr





El-priser næste døgn fra Nord Pool

El Pris

Alarm Oversigt

Sms Alarm

Network

Lager A HMI293

Lager B HMI293

Lager C HMI293

Lager D HMI295

Lager E HMI295

Lager F HMI295

Lager G HMI296

Lager H HMI296

Lager K HMI296

Lager L HMI297

Lager LF HMI297

Lager N HMI298

Lager O HMI298

Lager R HMI298

Lager S HMI298

Lager I HMI293

Time / Date	Tag	Priority	Type	Quality	Description
26-02-2025 20:29	Lager G HMI296/Alarm/Termofejl FD1 Blæser 1	800	Alarm	Good	Termofejl FD1 Blæser 1 Fejl
26-02-2025 20:29	Lager G HMI296/Alarm/Manuel Drift Aktiv FD1	800	Alarm	Good	Manuel Drift Aktiv FD1 Fejl

El Priser (Kr/Mwh)			
price	deliveryStart	deliveryEnd	
861,21	27-02-2025 23:00:00	28-02-2025 00:00:00	
824,44	28-02-2025 00:00:00	28-02-2025 01:00:00	
815,79	28-02-2025 01:00:00	28-02-2025 02:00:00	
797,52	28-02-2025 02:00:00	28-02-2025 03:00:00	
835,56	28-02-2025 03:00:00	28-02-2025 04:00:00	
840,03	28-02-2025 04:00:00	28-02-2025 05:00:00	
924,61	28-02-2025 05:00:00	28-02-2025 06:00:00	
1.110,02	28-02-2025 06:00:00	28-02-2025 07:00:00	
1.206,91	28-02-2025 07:00:00	28-02-2025 08:00:00	
1.085,19	28-02-2025 08:00:00	28-02-2025 09:00:00	
950,49	28-02-2025 09:00:00	28-02-2025 10:00:00	
820,42	28-02-2025 10:00:00	28-02-2025 11:00:00	
733,45	28-02-2025 11:00:00	28-02-2025 12:00:00	
682,44	28-02-2025 12:00:00	28-02-2025 13:00:00	
686,17	28-02-2025 13:00:00	28-02-2025 14:00:00	
754,41	28-02-2025 14:00:00	28-02-2025 15:00:00	
925,58	28-02-2025 15:00:00	28-02-2025 16:00:00	
1.101,75	28-02-2025 16:00:00	28-02-2025 17:00:00	
1.168,20	28-02-2025 17:00:00	28-02-2025 18:00:00	
1.178,42	28-02-2025 18:00:00	28-02-2025 19:00:00	
1.073,70	28-02-2025 19:00:00	28-02-2025 20:00:00	
979,35	28-02-2025 20:00:00	28-02-2025 21:00:00	
936,32	28-02-2025 21:00:00	28-02-2025 22:00:00	
874,19	28-02-2025 22:00:00	28-02-2025 23:00:00	





Lager med god isolering

Lager C HMI293

Lager D HMI295

Lager E HMI295

Lager F HMI295

Lager G HMI296

Lager H HMI296

Lager K HMI296

Lager L HMI297

Trend

Alarm

Status

Setup

Lager LF HMI297

Lager N HMI298

Lager O HMI298

Lager R HMI298

Lager S HMI298

Lager I HMI293

Lager IR HMI293

Lager U HMI299

Lager V HMI299

Kompressor

Time / Date	Tag	Priority	Type	Quality	Description
26-02-2025 20:29	Lager D HMI295/Alarm/Manuel Drift Aktiv FD1	800	Alarm	Good	Manuel Drift Aktiv FD1 Fejl
26-02-2025 20:29	Lager G HMI296/Alarm/Manuel Drift Aktiv FD1	800	Alarm	Good	Manuel Drift Aktiv FD1 Fejl

Trend Lager L



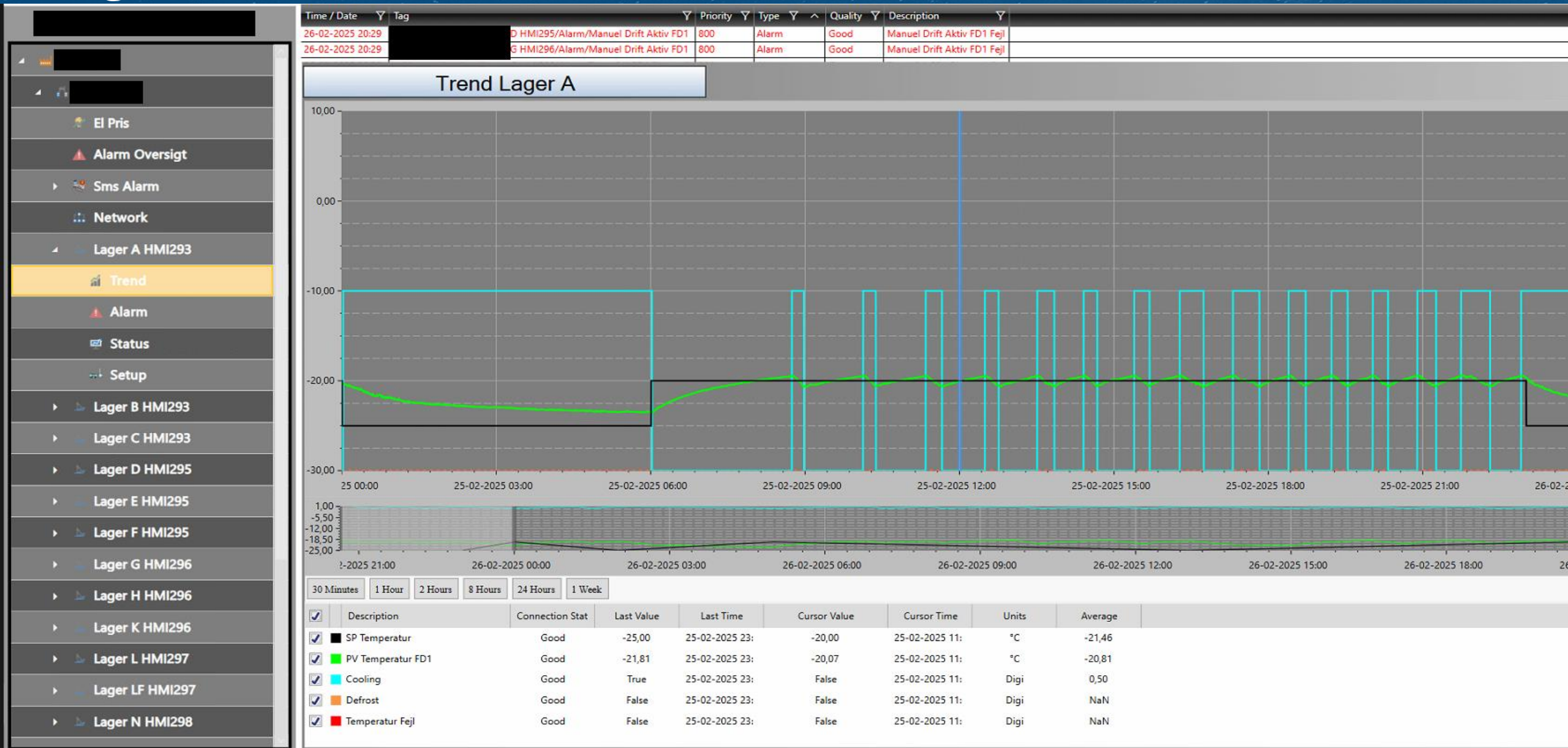
30 Minutes 1 Hour 2 Hours 8 Hours 24 Hours 1 Week

Description	Connection Stat	Last Value	Last Time	Cursor Value	Cursor Time	Units	Average
☒ SP Temperatur	Good	-20,00	25-02-2025 23:	-20,00	25-02-2025 11:	°C	-21,25
☒ PV Temperatur FD1	Good	-18,43	25-02-2025 23:	-19,98	25-02-2025 11:	°C	-20,24
☒ PV Temperatur FD2	Good	-19,95	25-02-2025 23:	-20,15	25-02-2025 11:	°C	-21,13
☒ PV Temperatur FD3	Good	-18,75	25-02-2025 23:	-18,72	25-02-2025 11:	°C	-19,77
☒ Cooling FD1	Good	False	25-02-2025 23:	True	25-02-2025 11:	Digi	0,30
☒ Defrost FD1	Good	False	25-02-2025 23:	False	25-02-2025 11:	Digi	0,05

[illegible]



Lager med mindre god isolering





Q&A

Mød Heptagon/ICONICS på stand 11

Energiforum 25/3 – 27/3, 2025.

Henrik Clausen, Heptagon & Jørn Mikkelsen, H. Jespersen A/S