



AVEVA WORLD

Enhancing situational awareness in
power utilities. Our journey with
AVEVA PI Vision

Burbank Water & Power



Always There for You!

On-site Generation

Lake 50 MW

MPP 315 MW joint owned.

Anaheim (CAISO)

Burbank - Operates /Maint.

Glendale (ICCP)

Pasadena (CAISO)

Cerritos (CAISO)

Colton (CAISO)



Always There for You!

Off-site Generation

- 250 MW CM3 solar farm Burbank share 40 MW in NV
- Coal fired IPP Burbank share 72 MW in UT
- Milford wind farm 10 MW in UT
- Teiton run of river hydro 16 MW in WA
- Hoover dam MW varies

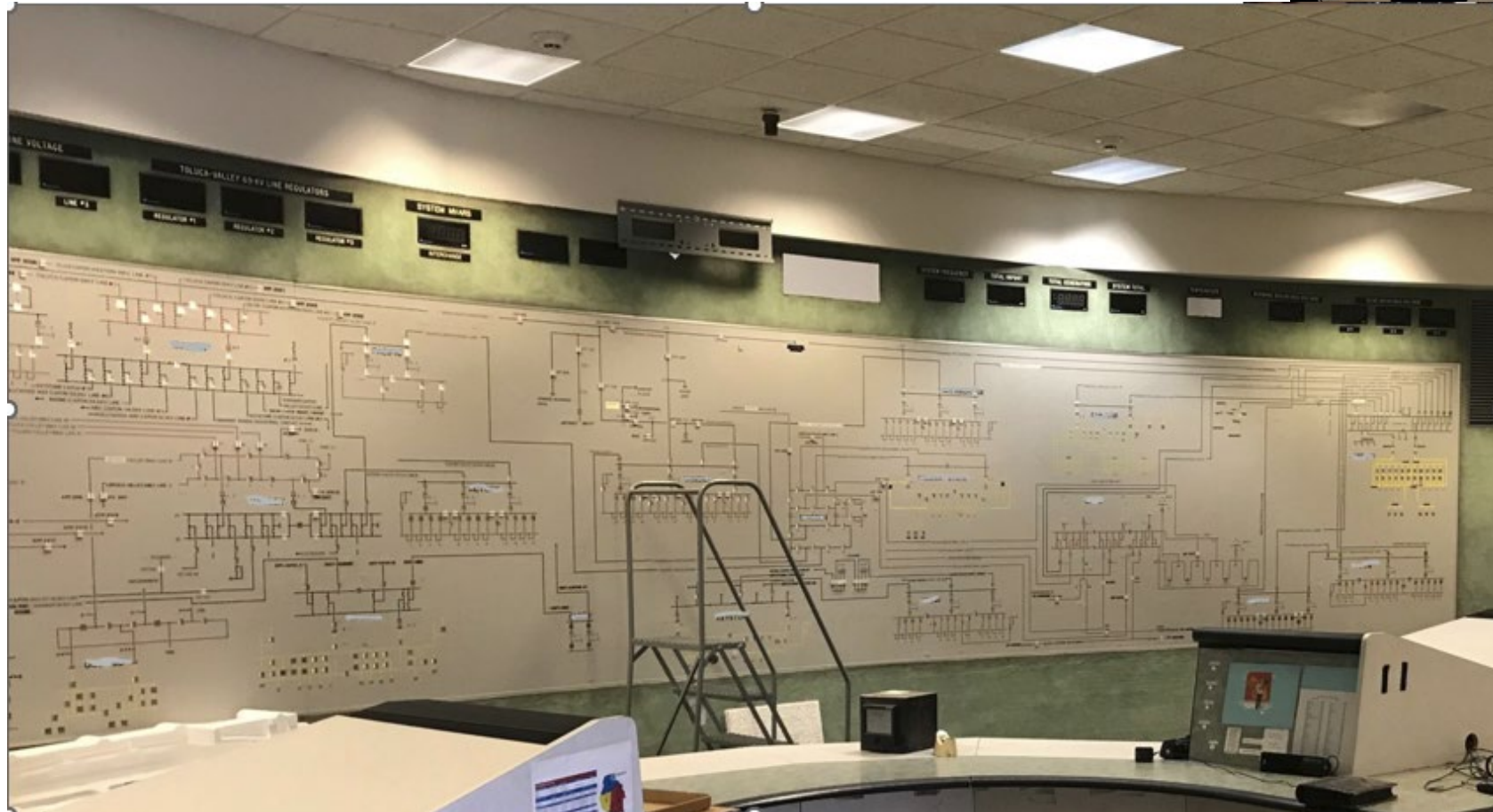
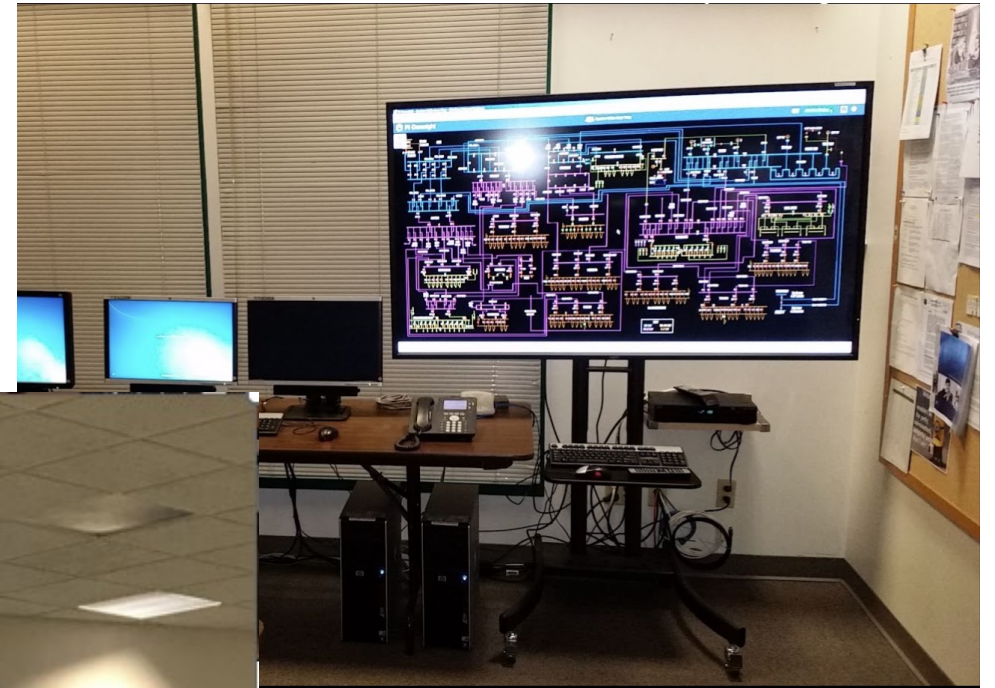
Municipal Utility
Southern California

17.11square miles

54,000 meters

Peak load 320 MW

Ties: LADWP & GWP



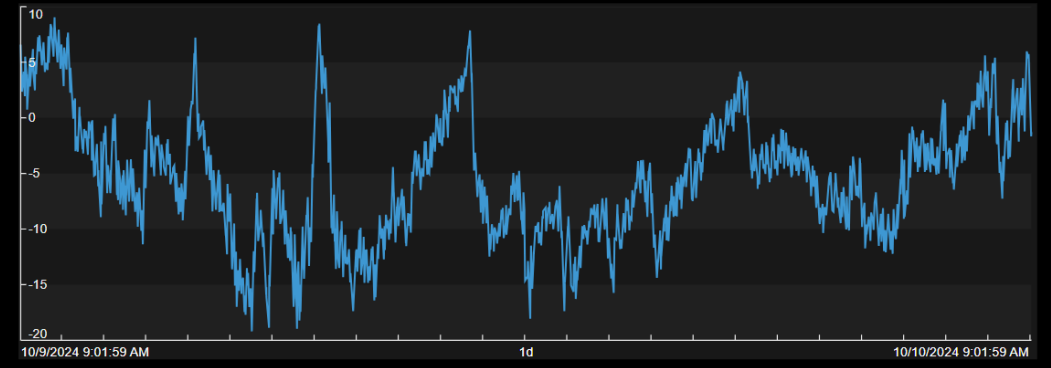
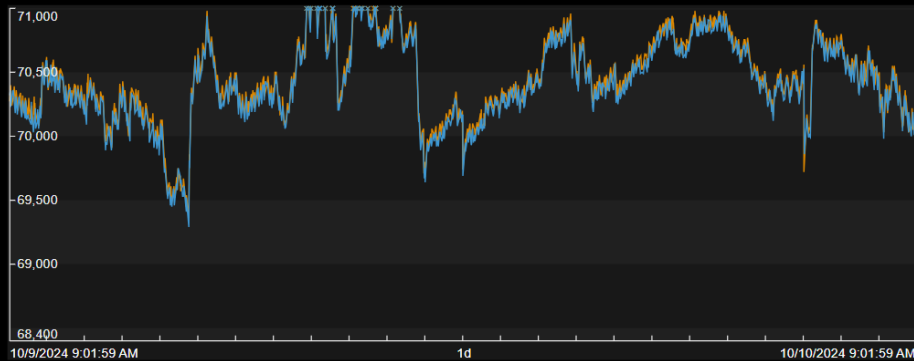
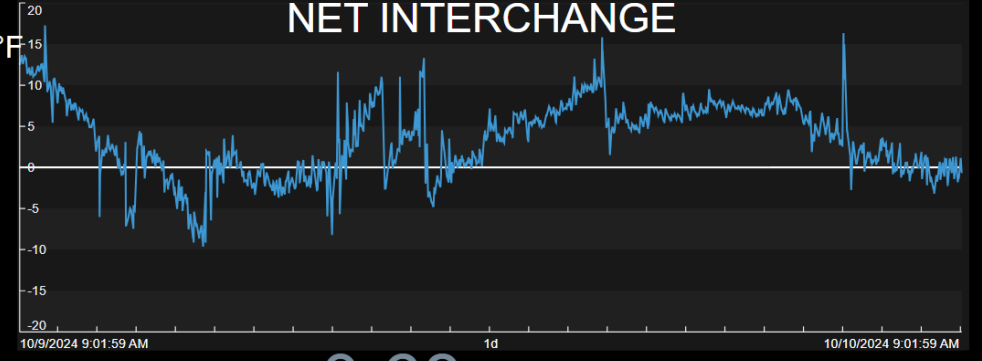
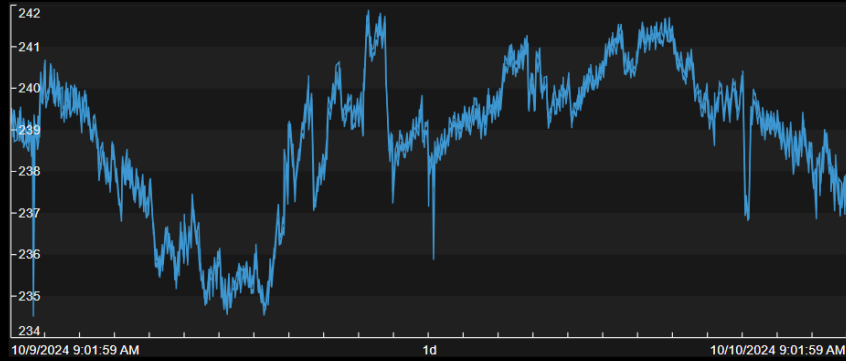
traber.system

Asset: A-1



10/10/2024 9:01:59 AM

Temperature 63.767 °F
Humidity 85.8 %



-0.68 MVAR

ACE -1.31 MW

10/9/2024 9:01:59 AM



1d



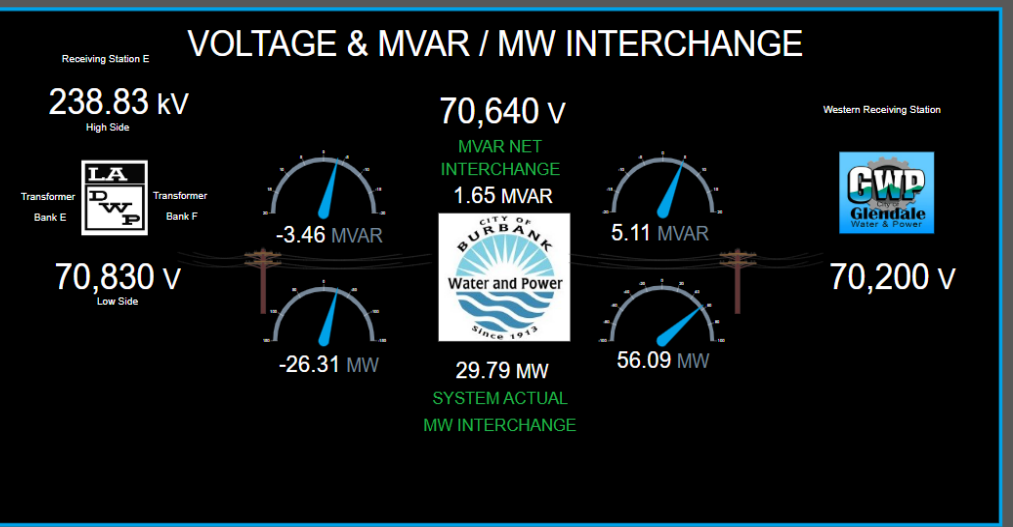
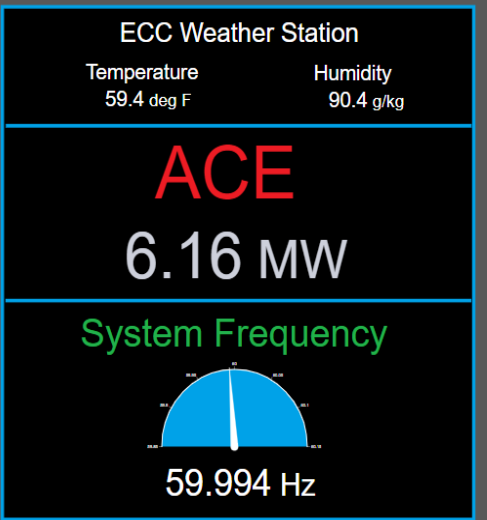
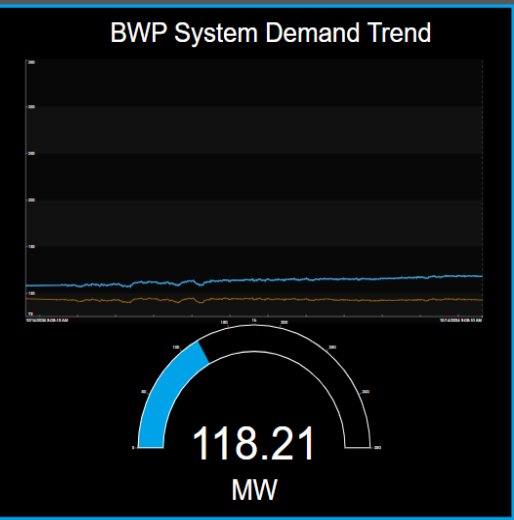
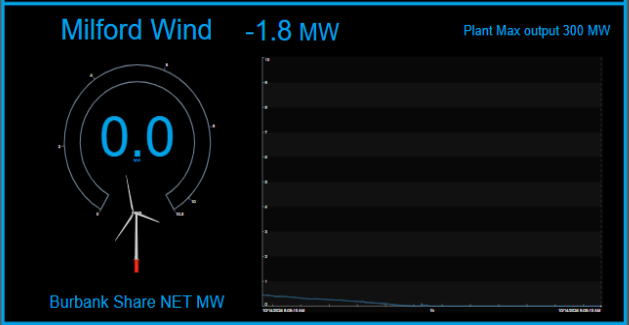
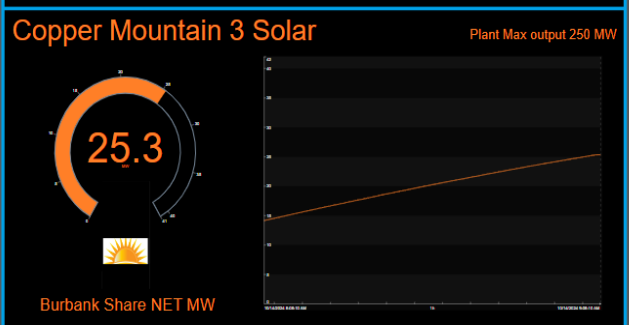
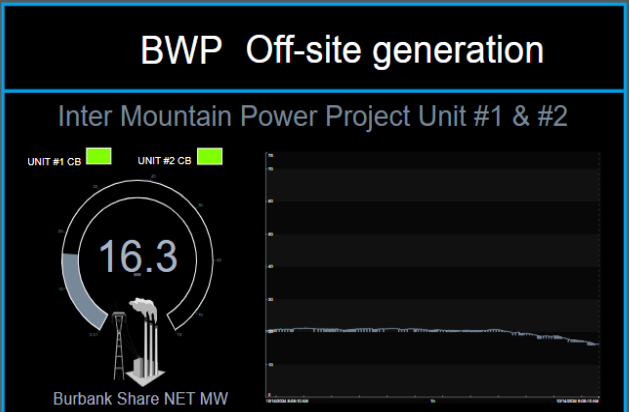
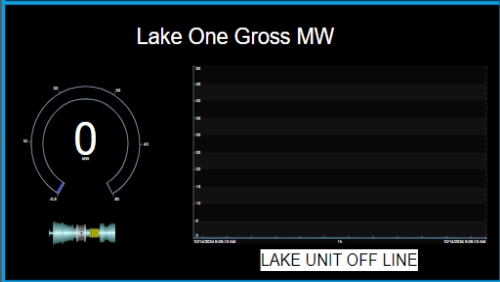
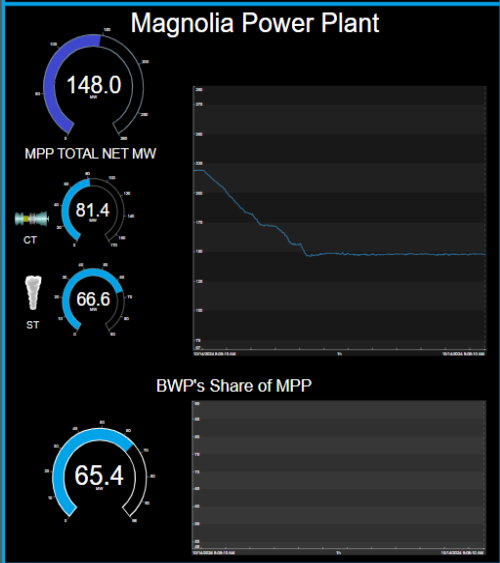
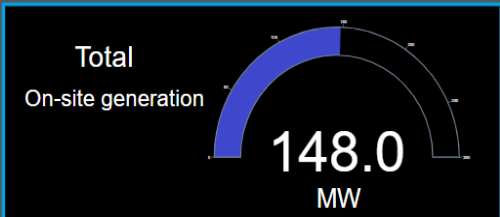
Now

10/10/2024 9:01:59 AM



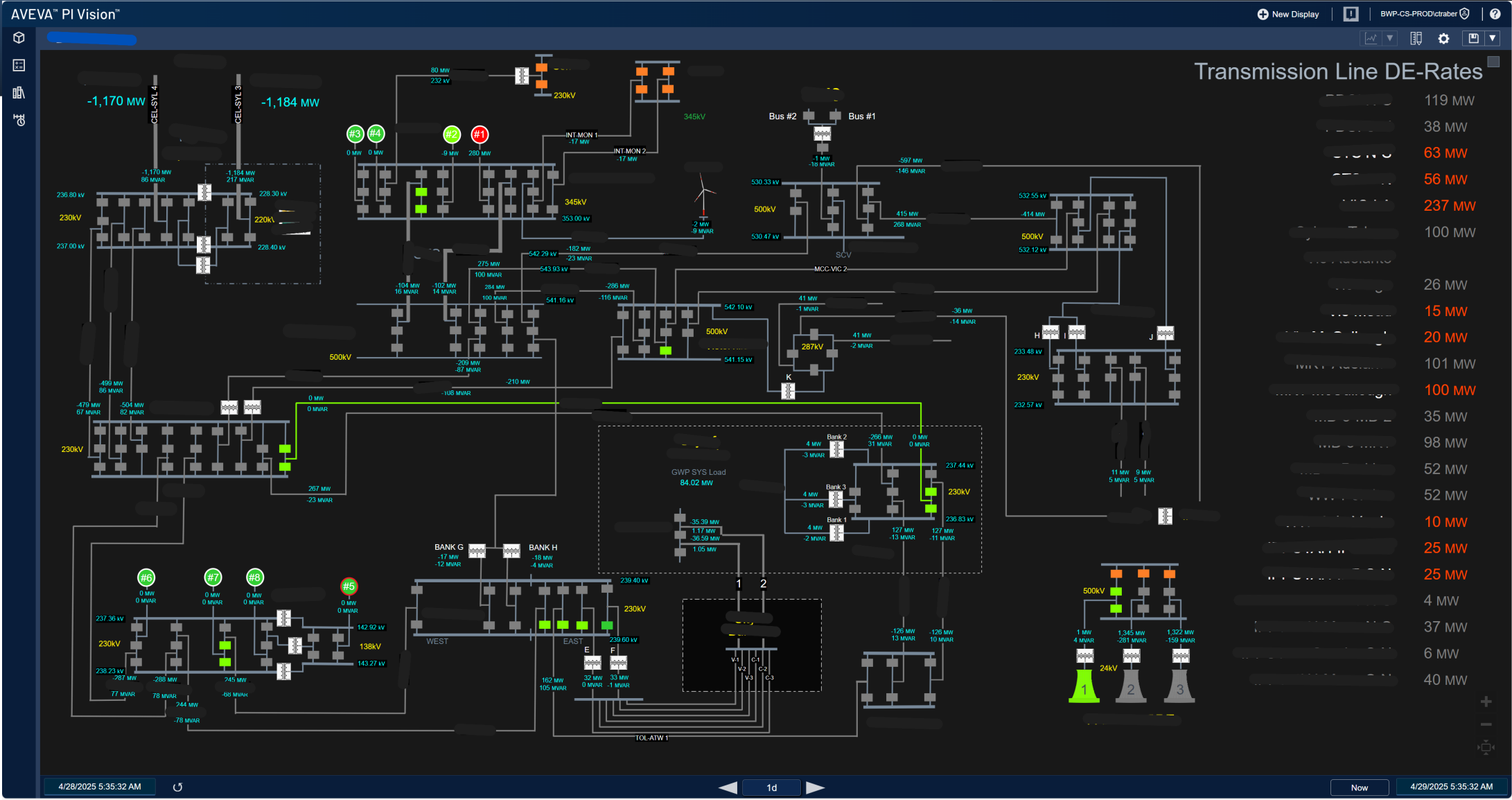
Burbank Water and Power Real Time System Conditions

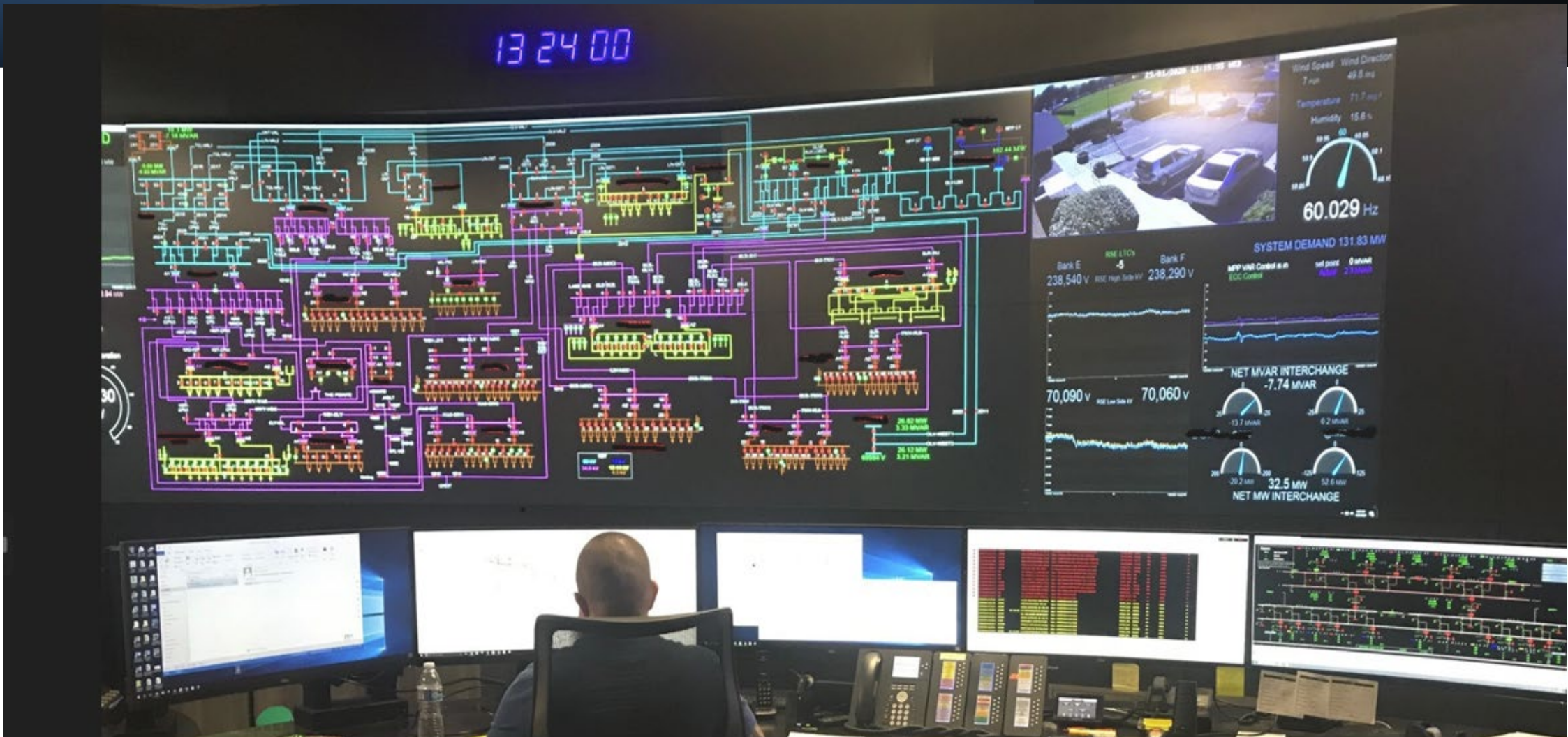
10/14/2024 9:07:33 AM





- Transmission lines used to import/export energy for Burbank system



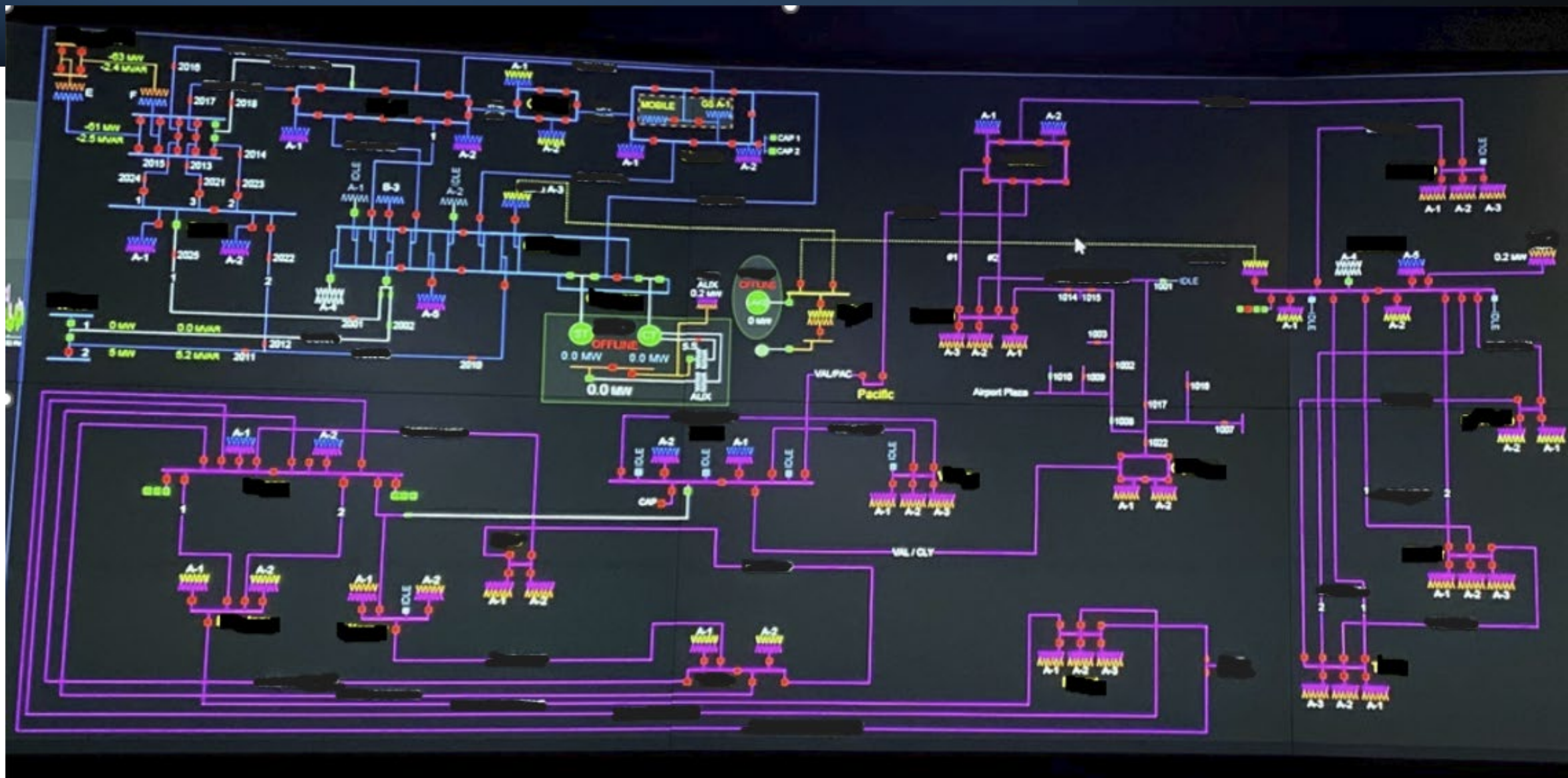


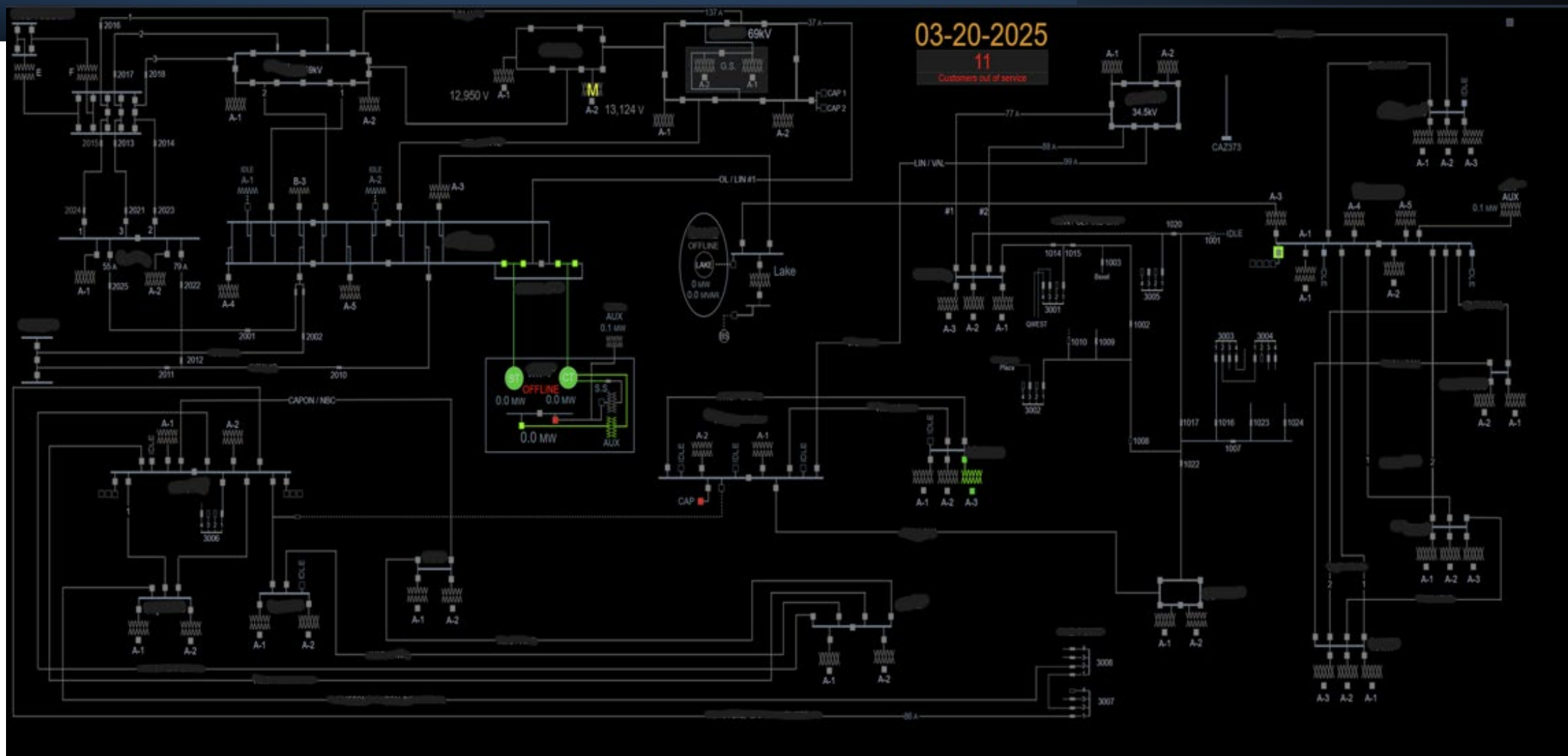
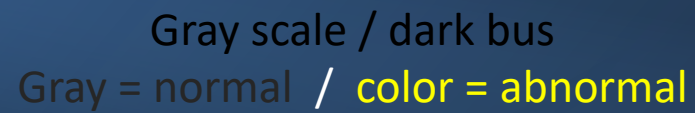




- April 10, 2020
- Golden State sub station transformer explosion.

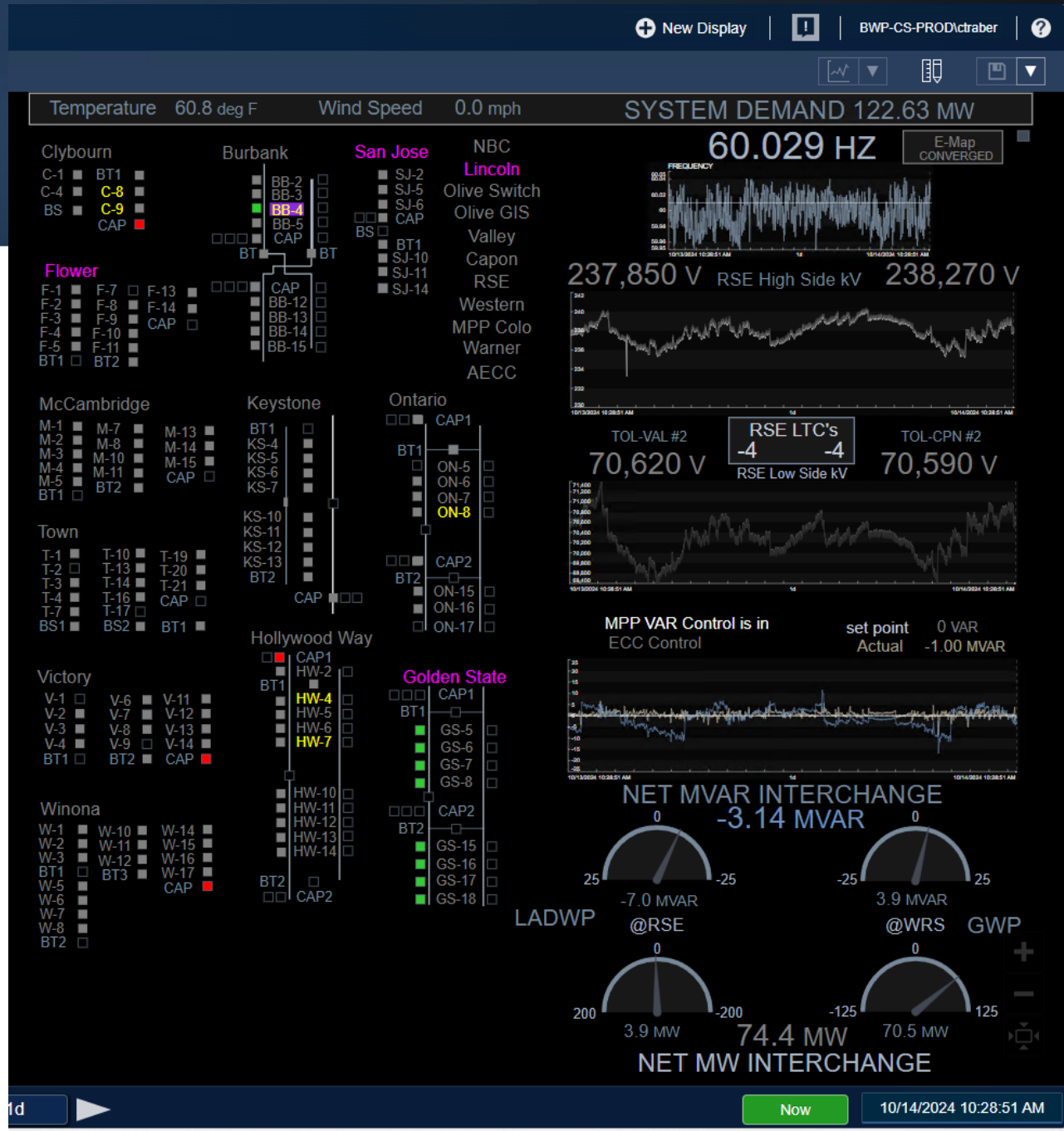






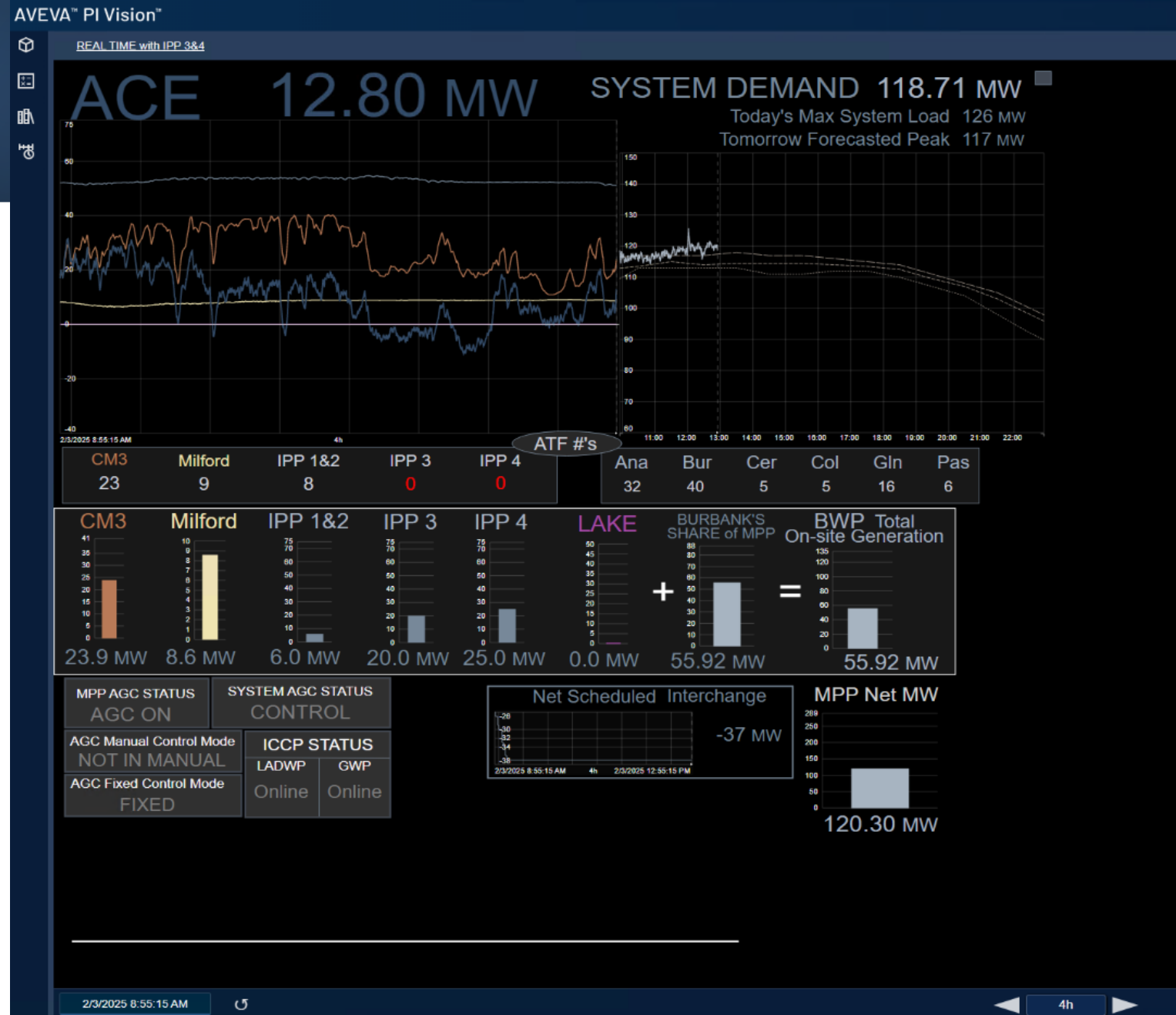


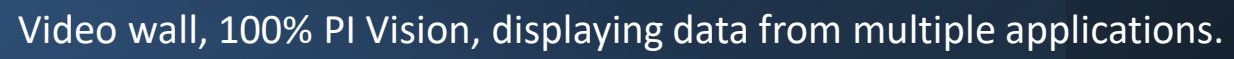
- Distribution feeders
- CB indication
- Recloser status
- GOC status
- Station occupied
- MW/MVAR direction at Ties
- Voltage at ties
- LTC step at Ties
- System Frequency

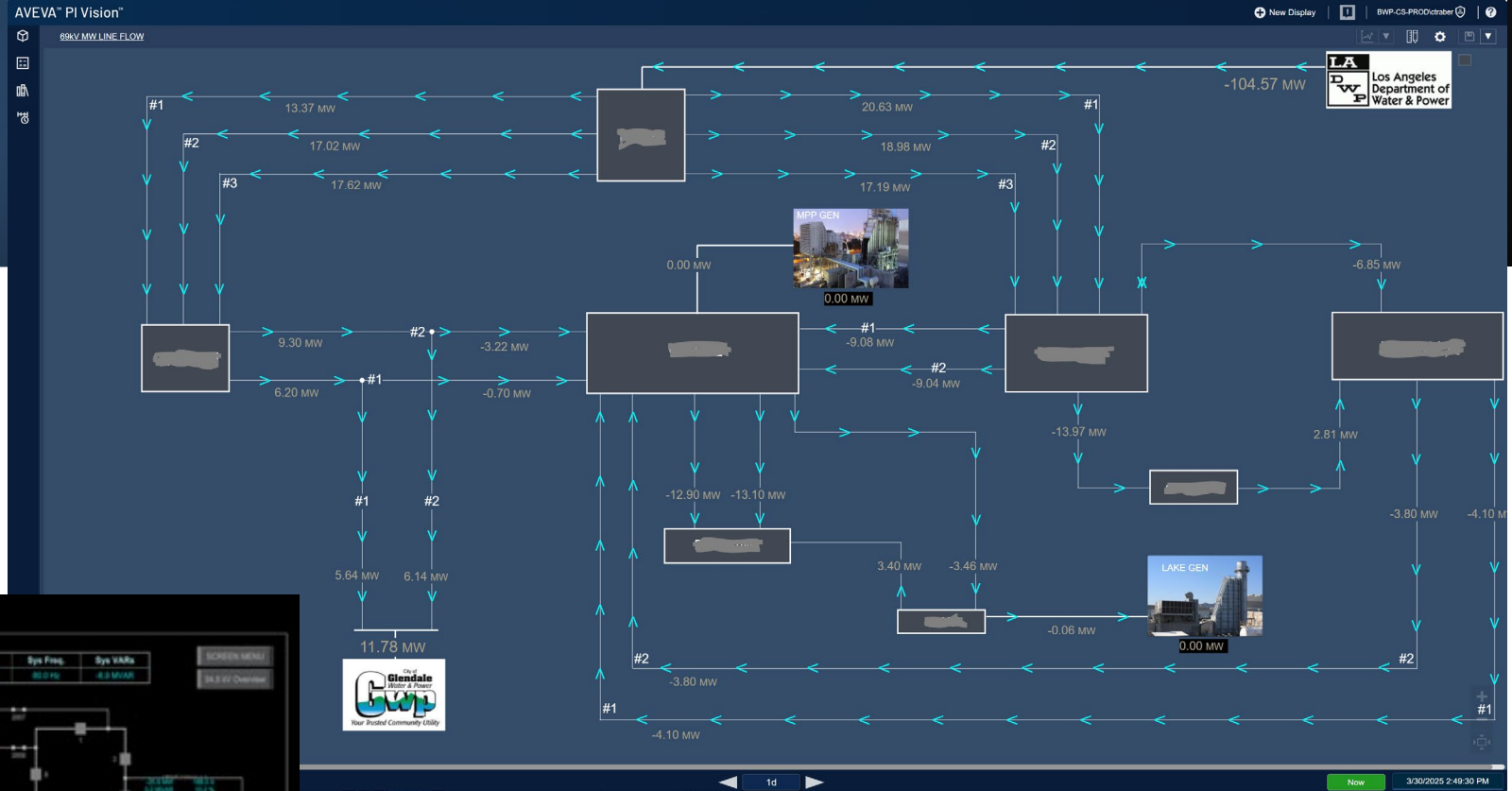
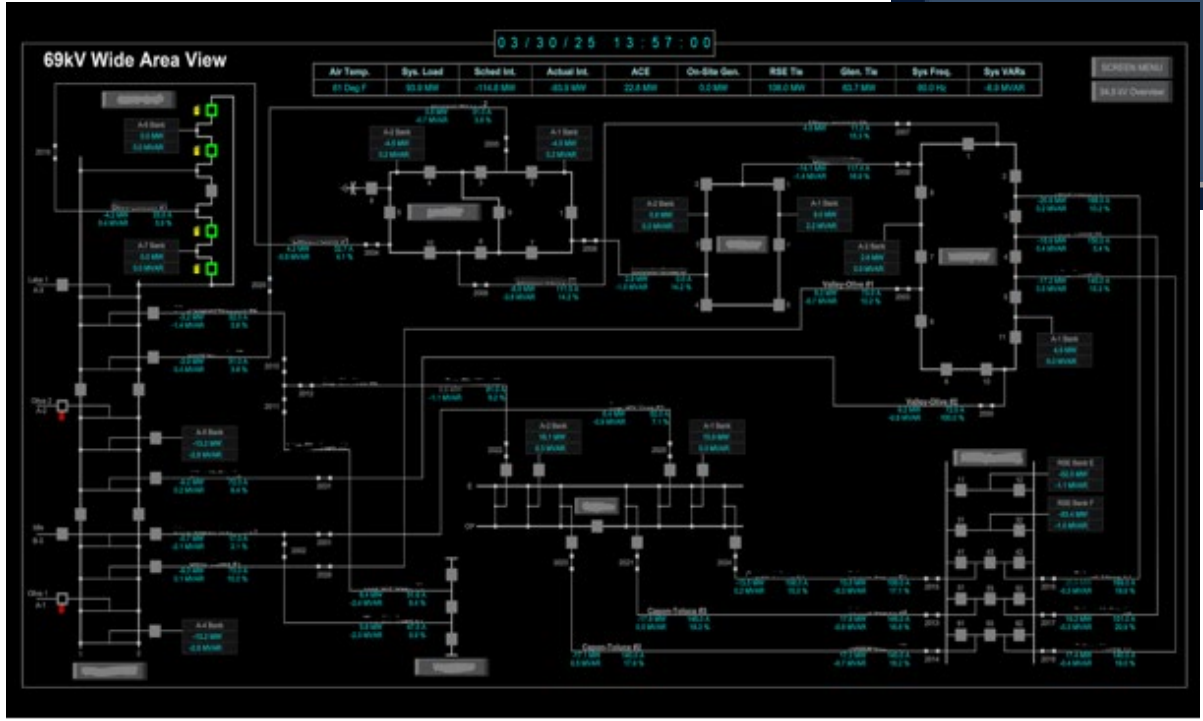




- ACE plus trend
- System demand
- Max system load (today)
- Tomorrows forecasted peak
- Last 4-hour load trend
- Future 10-hour load forecast
- Solar farm trend
- Wind trend
- Other generation values
- ATF values on dynamic tags
- Generation control status
- Comm. status









Navigation Links





PI Vision Calculations (create a new point from two or more points)

AVEVA™ PI Vision™

New Display

!

BWP-CS-PROD\ctraber

?

Calculations

+

✎

🗑

LANDFILL_tot...

Columns

Value

Average

Maximum

Minimum

PercentGood

pStdDev

Range

StdDev

Total

TDMS DISPATCH SIDE

Temperature 59.1 deg F

Wind Speed 2.2 mph

SYSTEM 6

Clybourn

Burbank

San Jose

NBC

Lincoln

Valley

Dapon

RSE

Western

PP Colo

Warner

AECC

Calculation Editor

Name

Name is required

Description

Drag and drop an Asset

Drag and drop an attribute from search results or type to enter an expression. See the 'Calculation syntax' topic in the PI Vision User Guide for more details.

Preview

Advanced Options

Save

Cancel

3/20/2025 9:58:42 PM

1d

Now

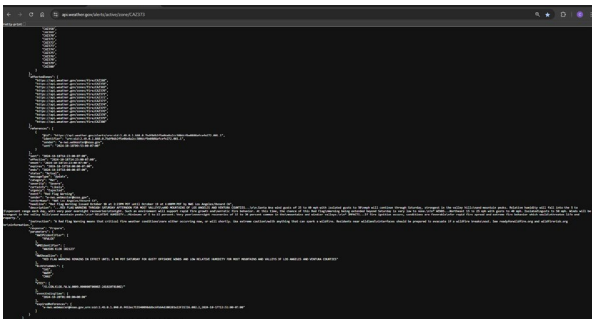
3/21/2025 9:58:42 PM



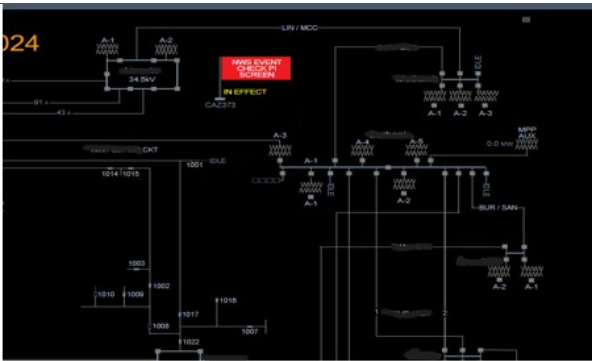
Use of API connector

An API (Application Programming Interface) is a set of rules and protocols that allows different software applications to communicate and interact with each other, enabling them to share data and functionality.

Information from NWS website

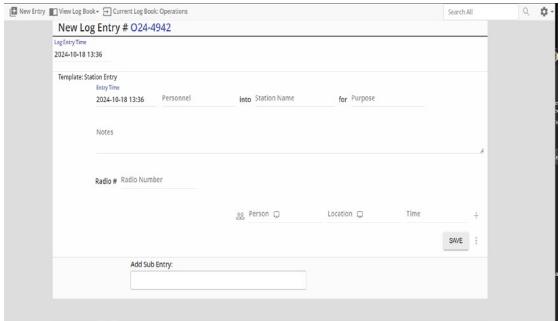


Converts data to PI language

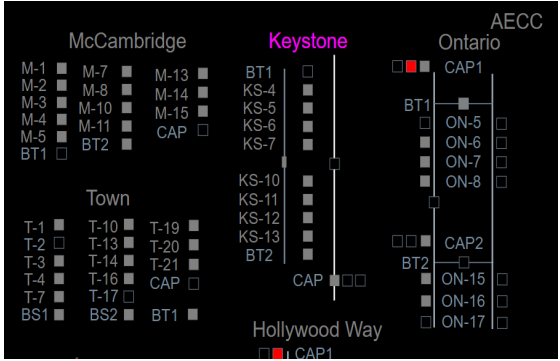


PI point for a display (Red Flag Warning) in effect

electronic logging software

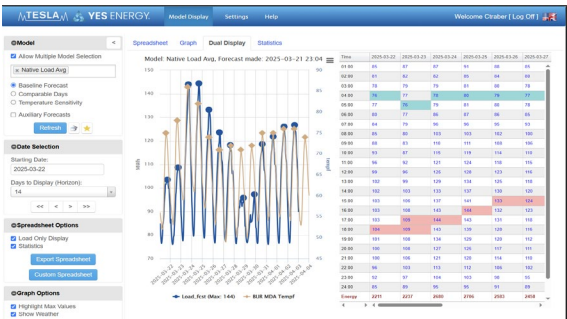


Converts data to PI language

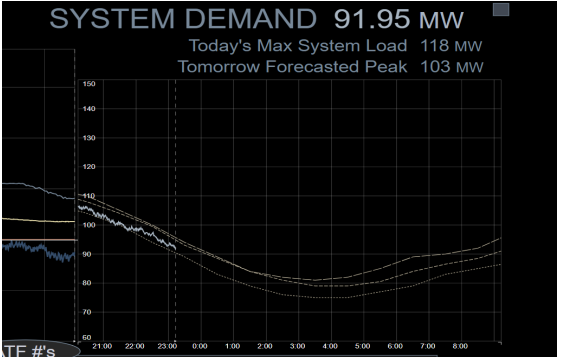


PI point for a display crew in station & low gas bottle

Temperature & load forecasting software



Converts data to PI language



PI point for a display 10 day forecast temp & load



AVEVA™ PI Vision™

New Display | BWP-CS-PRODctrabcr

AF ADVERSE WEATHER CONDI...

Wildfire Mitigation & Wind Advisories

24Hr timer starts when flag goes down

Enable Reclosers when timer disappears

	Time that Flag on video wall popped up		Time you need to block reclosers			
	1/19/2025 3:24:00 PM	→	1/20/2025 8:00:00 AM	→	→	
	1/18/2025 10:18:00 PM	→	1/20/2025 4:00:00 PM	→	→	12:11:36
	1/15/2025 9:15:00 AM	→	1/15/2025 9:15:00 AM	→	→	
	1/19/2025 2:52:00 PM	→	1/20/2025 8:00:00 AM	→	→	
	Pt Created	→	Pt Created	→	→	
	Pt Created	→	Pt Created	→	→	
	Pt Created	→	Pt Created	→	→	
	Pt Created	→	Pt Created	→	→	
	Pt Created	→	Pt Created	→	→	

Sent Time

Onset Time

<https://api.weather.gov/alerts/active/zone/CA737>

Make sure Now is Green

1/19/2025 11:06:37 PM

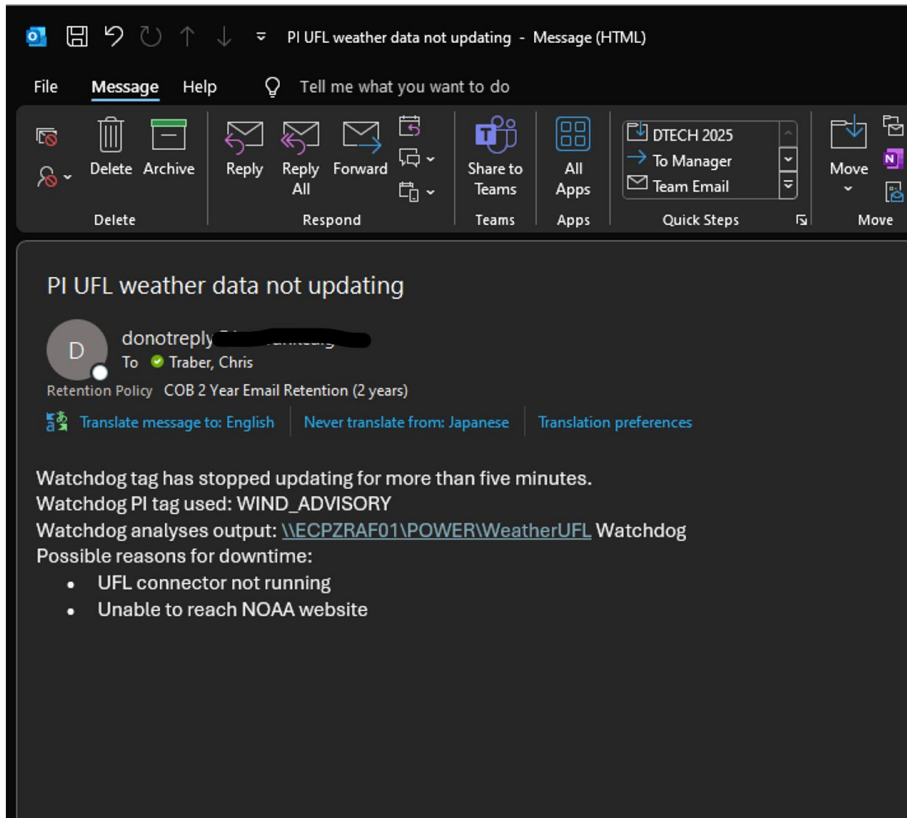
1d

Now

1/19/2025 11:06:37 PM



Email notifications



ECC HIGH_WIND_WARNING NOTIFICATION

donotreply@
To ECC Operations

Retention Policy COB 2 Year Email Retention (2 years)

☀️ 😊 ↩️ Reply ↩️ Reply All ➡️ Forward 📧 ...

Sun 1/19/2025 11:18 AM

Expires 1/19/2027

🌐 Translate message to: English | Never translate from: Japanese | Translation preferences

The City of Burbank is anticipating a HIGH_WIND_WARNING, during which Burbank Water and Power (BWP) will block all reclosers on our 4kV and 12kV feeders. This measure will remain in effect until the event concludes. Detailed information regarding the event will be included in the midnight status report.

If you have any further questions, please contact the on-shift system operator at [REDACTED]

Event Details:

- Expected Start Time: 1/20/2025 8:00:00 AM Pacific Standard Time (GMT-08:00:00).
- Anticipated End Time: 1/21/2025 2:00:00 PM Pacific Standard Time (GMT-08:00:00).
- Recloser Re-enablement: Approximately 24 hours after the event concludes.

Thank you,

City of Burbank Energy Control Center



Displays used by other departments

Low Gas Bottle
Display for the
Electric Shop



Load forecast for
Valley Pumping
Plant





Automation, with fewer programs and operator intervention.

AVEVA™ PI Vision

New DisplayBWP-CS-PROD October

ATF as of 2-19-25

02-23-2025ATF VALUES

Back to dashboard23 H25 H

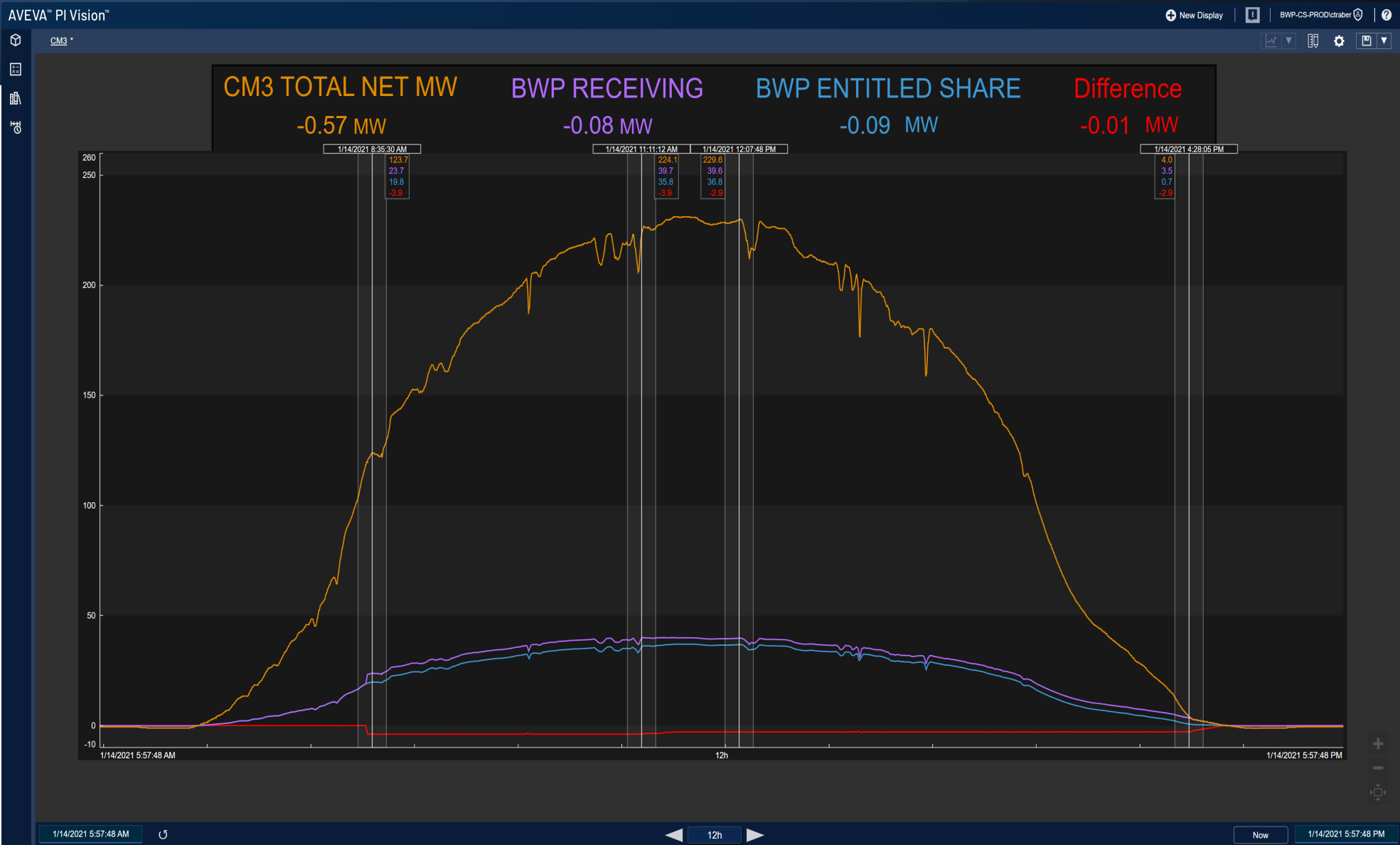
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CM3	0	0	0	0	0	0	1	14	26	35	39	40	40	37	32	21										285	CM3
MIL	0	0	1	1	1	4	4	3	2	2	2	4	4	3	2	1										34	MIL
IPP 1-2	8	7	7	7	7	7	7	7	7	8	7	7	7	7	7	6										113	IPP 1-2
IPP 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0	IPP 3
IPP 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0	IPP 4
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
ANA	33	32	32	33	32	32	32	32	32	33	32	33	33	32	33	32										518	ANA
BUR	61	60	61	61	60	60	60	50	40	30	29	29	29	28	29	37										724	BUR
CER	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4										64	CER
COL	5	5	5	6	7	8	10	7	5	5	5	5	5	5	5	5										93	COL
GLN	21	18	15	16	16	17	14	14	14	14	15	14	14	15	14	15										246	GLN
PAS	6	6	6	6	6	6	6	6	7	6	6	6	6	6	6	6										97	PAS
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
LA MPP start up energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0	LA MPP start up energy

2/22/2025 5:55:02 AM1d 11hNow2/23/2025 4:55:02 PM



PI Vision

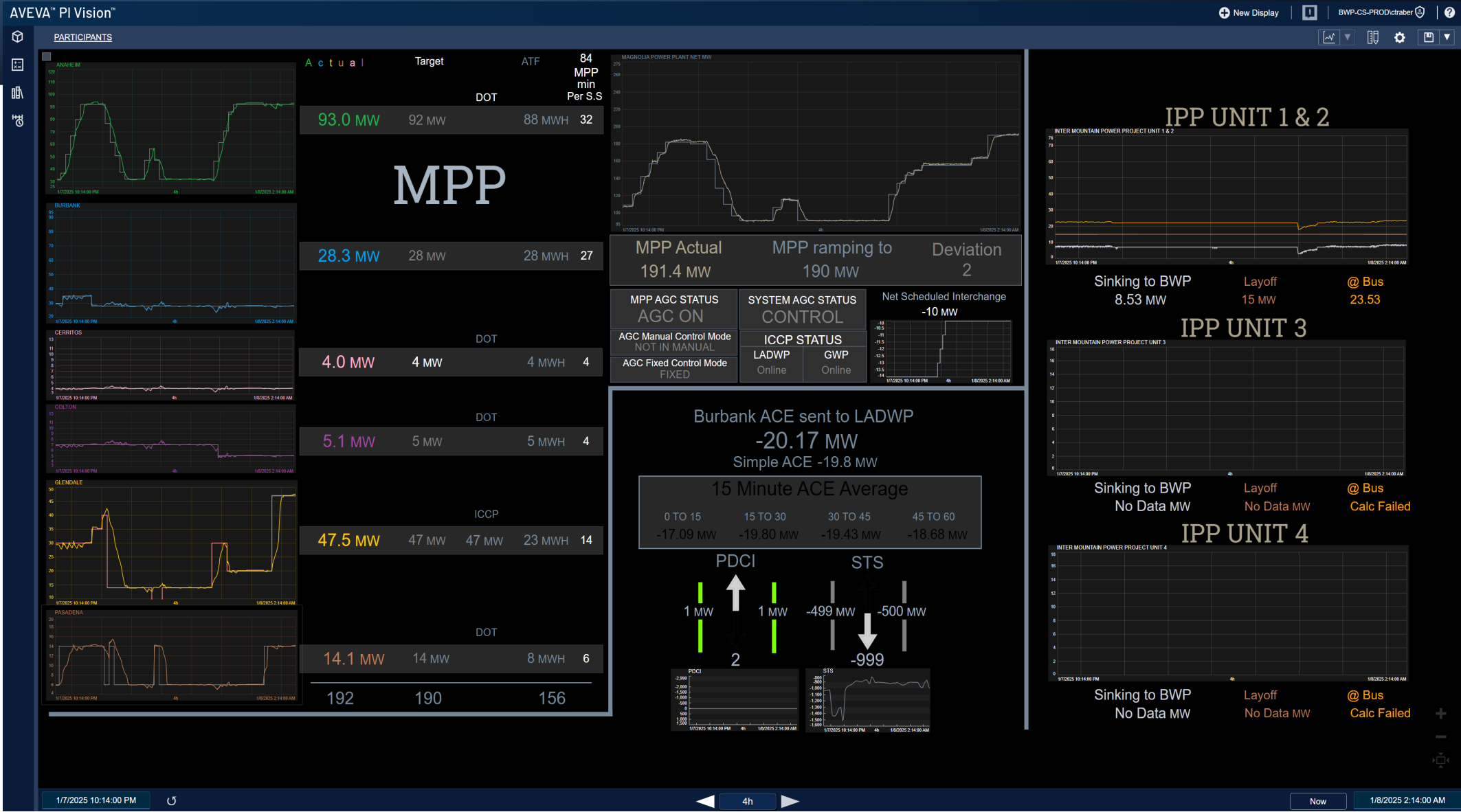
a solution to resolve discrepancies.





PI Vision

a solution to resolve discrepancies.



City of Burbank improves safety and reliability with increased situational awareness of its assets

Challenge

- Control Room Infrastructure was outdated, and relied heavily on manual processes
- Operators had difficulty monitoring real-time system conditions effectively
- Temporary display solutions were overcrowded and ineffective
- Alarm overload meant operators had difficulty deciphering field conditions during critical events

Solution

- Implemented AVEVA™ PI Vision™ to enable trusted situational awareness by providing advanced visualization tools that improved real-time monitoring and decision-making.

Results

- Enabled faster, data-driven decisions in normal and emergency situations
- Reduced reaction times and more effective response to dynamic grid conditions
- Improved operational efficiency by reducing manual work, automating processes, and enhancing monitoring capabilities
- Minimized discrepancies in power allocation, leading to more accurate cost assessments and financial benefits
- Enabled seamless interdepartmental workflows and increased engagement and adoption of the technology through automation and real-time data sharing

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