



**Partners in
Project Green**

Brought to you by:

Toronto and Region Conservation Authority and Toronto Pearson

Energy Leaders Consortium Roundtable Meeting: Molson Coors

Energy Leaders Consortium

September 25, 2026

Land Acknowledgement

We respectfully acknowledge that we are situated on the Traditional Territories and Treaty Lands, in particular those of the Mississaugas of the Credit First Nation, as well as the Anishinaabe of the Williams Treaty First Nations, the Huron Wendat, the Haudenosaunee, and the Metis Nation.

As stewards of land and water resources within the Greater Toronto Region, Toronto and Region Conservation Authority appreciates and respects the history and diversity of the land and is grateful to have the opportunity to work and meet on this territory.



Additional Resources

Resources

- Native-Land.ca
- Circles for Reconciliation
- EdgeoftheBush.ca
- Text 1-855-917-5263 with your City and Province to learn whose traditional territory you're on
(standard text messaging rates may apply)

Days of Awareness

- September 30th is observed as **the National Day for Truth and Reconciliation** as well as the **Orange Shirt Day**.



A Collaborative Space for All

Proposed Operative Values for ELC meetings:

1. Balance airtime to hear from as many voices as possible
2. Be curious and challenge our own assumptions and biases
3. Be open to building on each other's suggestions or taking the conversation in another direction



Agenda

Time	Activity
9:30–9:45 AM	Introduction and Updates from PPG
9:45–10:15 AM	Presentation by Molson Coors
10:15 – 11:00 AM	Site Tour
11:00–11:30 AM	Q/A & Discussion Closing and Departure



Introduction

A blue-tinted photograph of three people walking through a large industrial warehouse. On the left, a man in a white hard hat and safety vest. In the center, a woman in a dark dress and boots. On the right, a man in a suit and tie. They are walking on a polished floor towards the camera. The background shows high ceilings, metal structures, and tall shelving units filled with boxes.

Upcoming ELC Sessions & PPG Events

Date	Topic
Oct 1st, 2026 9:30am – 12:00pm	PPG Member-Only Fall Tree Planting
Oct 21st, 2026 3:00pm – 4:00pm	Online Member Meet Up <i>Virtual</i>
Oct 27th, 2026 10:00am – 11:30am	CEC/ELC: Exploring Corporate Lifecycle Analysis Tools <i>Virtual</i>
Nov 10th, 2026 1:00pm – 4:00pm	ELC Roundtable with Unity Health Toronto <i>More details to come shortly</i>
Nov TBD	ELC Roundtable with York University <i>More details to come shortly</i>



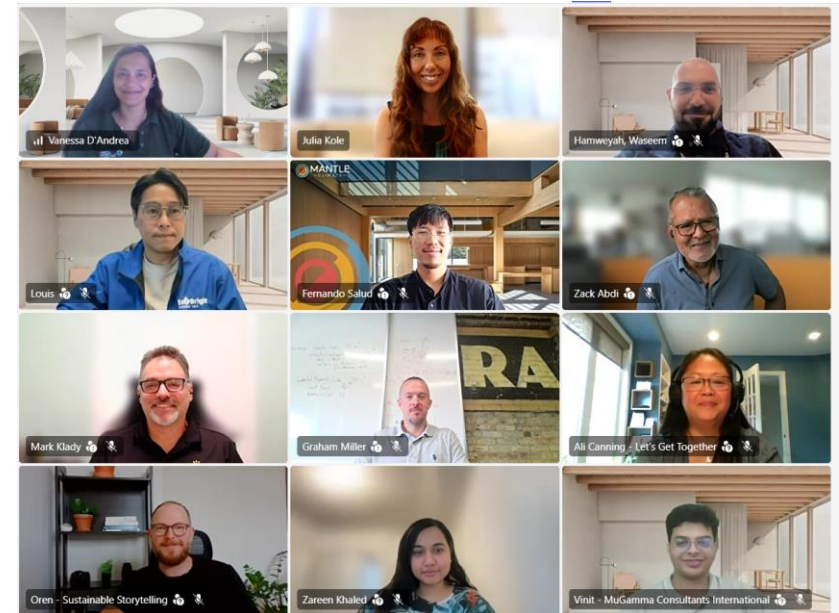
Online Member Meet Up

Access the PPG community online to network and talk about your sustainability challenges and achievements!

- Open to all employees who are current members of PPG
- A chance to ask questions, share your achievements, and learn about your fellow PPG members

Next session: Wednesday, October 21st, 2026

Time: 3:00pm – 4:00pm



Let me know if you aren't getting the calendar invites!



Exploring Lifecycle Analysis Tools

Members of the Circular Economy Leaders Consortium and the Energy Leaders Consortium are invited to join a vendor engagement session on Lifecycle Analysis (LCA) tools featuring [EcoChain](#), [SimaPro](#), and the [Municipal Solid Waste Decision Support Tool](#) (MSW DST).

Members will have the opportunity to

- Learn about the LCA tools and their capabilities
- Participate in a panel discussion moderated by Dr. Calvin Lakhan, Director – Circular Innovation Hub, York University
- Ask questions and explore if these tools can benefit their organization.

Date: Tuesday, October 27th, 2026

Time: 10:00am – 11:30am

Event Page: <https://partnersinprojectgreen.com/events/circular-economy-leaders-consortium-exploring-corporate-lifecycle-analysis-tools/>



Energy Performance: Site Assessment Programs

Free expert-led site assessments are offered with Municipal partners from Brampton, Caledon, Milton, and Mississauga (the Malton area) to help businesses:

- Save costs
- Improve energy efficiency
- Boost climate resilience and reduce carbon emissions

Brampton



[Click here to learn more](#)

Caledon



[Click here to learn more](#)

Milton



[Click here to learn more](#)

Mississauga - Malton



[Click here to learn more](#)



Next June:

2027

SHARED

FUTURES

Where Industry, Government, and
Community Shape the Future of
Sustainable Business



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Molson Coors

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Toronto Brewery Overview

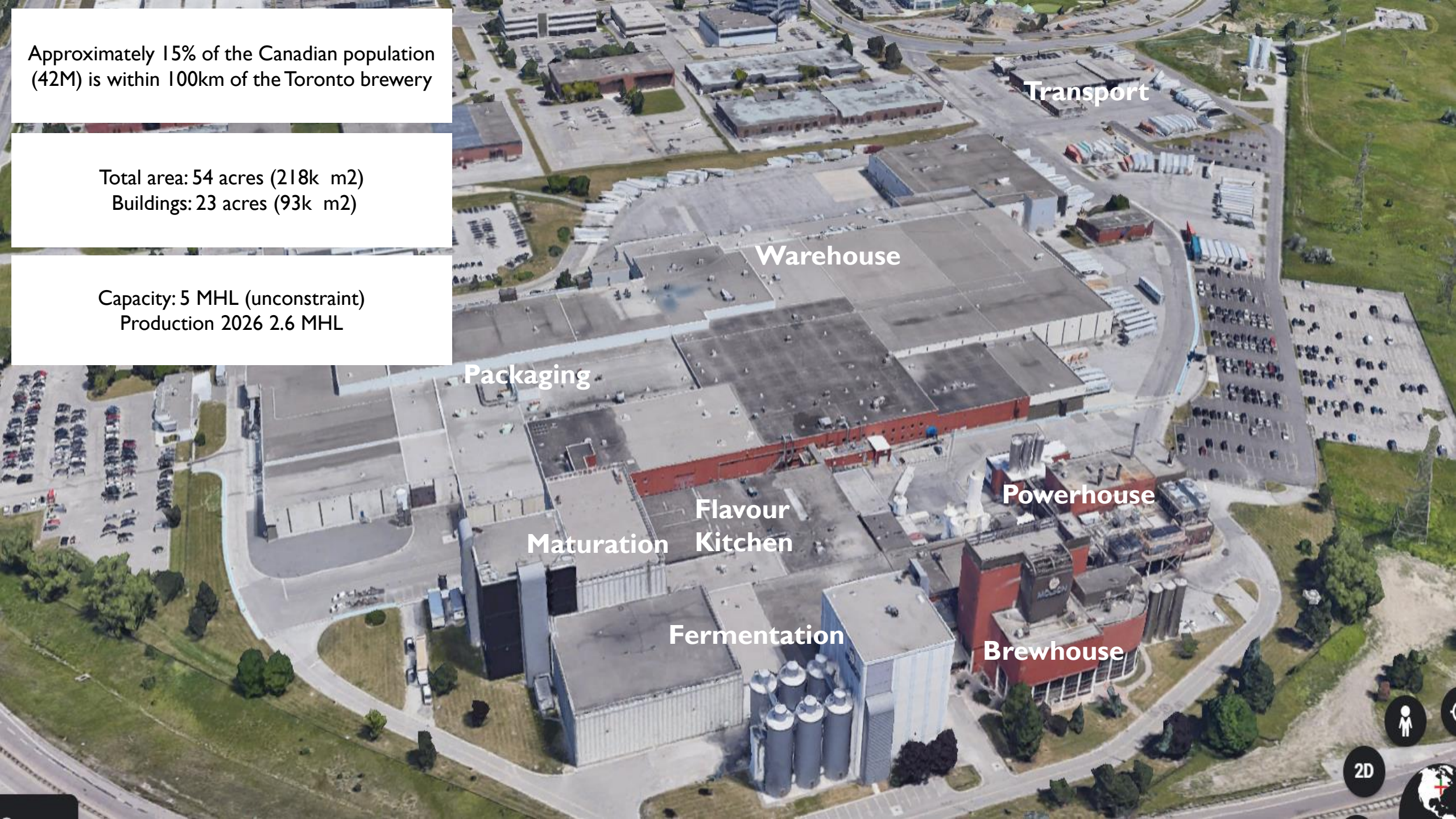


MOLSON
COORS beverage
company

Approximately 15% of the Canadian population (42M) is within 100km of the Toronto brewery

Total area: 54 acres (218k m²)
Buildings: 23 acres (93k m²)

Capacity: 5 MHL (unconstraint)
Production 2026 2.6 MHL



Transport

Warehouse

Packaging

Flavour
Kitchen

Powerhouse

Maturation

Fermentation

Brewhouse

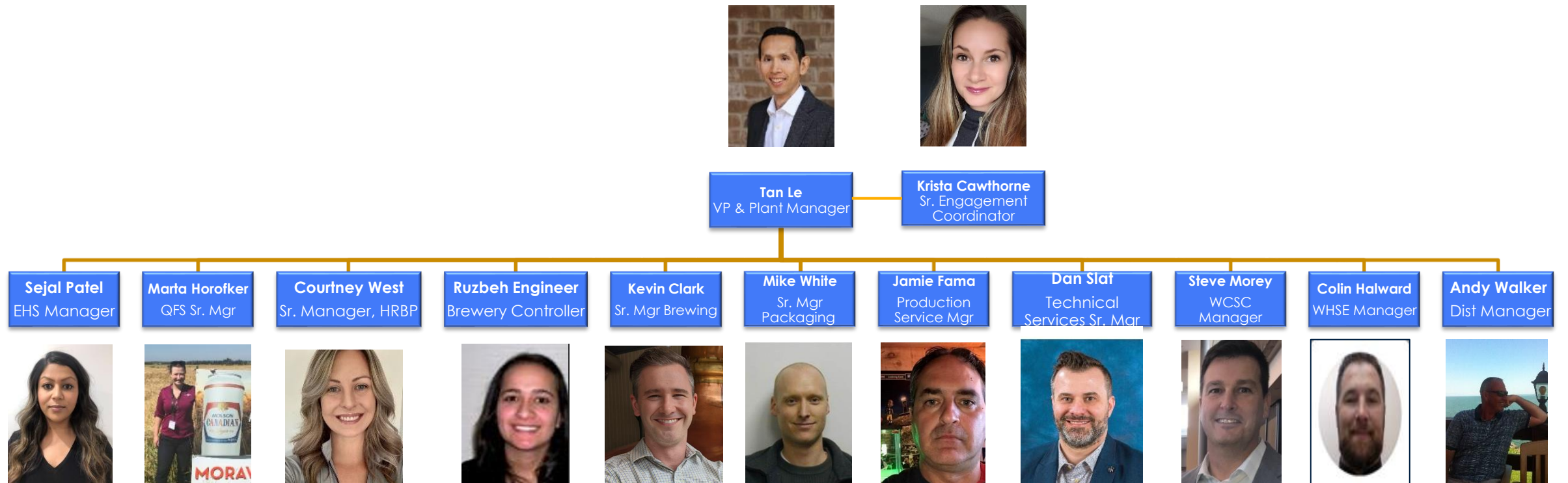
2D

Toronto Brewery Highlights



- 1958 – Construction Began
- 1961 – First Commercial Production
- 1973 – Location was renamed Carling O`Keefe
- 1989 – Merger between Molson and Carling (Closure of the Fleet Street Brewery)
- 2000 – Barrie Brewery is closed
- 2005 – Molson Coors!
- 2011 – Contract Brewing Agreement with FIFCO
- 2014 – Significant investment into C2 can lines and bottle washer
- 2016 – Molson Coors acquires MillerCoors to become the 3rd largest global brewer
- 2017 – Investment into B5 bottle line with new packers
- 2019 – Investment into C4 can line with new filler/seamers
- 2020 – Investment into B5 bottle line with a new labeler (additional PSL capability)
- 2021 – Significant investment in brewing and packaging to enable flavor beverage capabilities

Brewery Leadership Team



Compelling Business Needs (CBN)



- 1 People Engagement
RTFT (EHS/QFS)
Most improved sustainability
- 9 9% PR improvement
- 6 6% improvement in MPSA
- 1 1st choice for volume
1% reduction in cost annually
One way of working (WCSC)



MCBC Sustainability Purpose

Energy Leaders Consortium

HORIZON 2030

Building to Growth through **Accountability, Capability & Discipline**

Build a Scaled Portfolio of Strong Brands

GROW NSR AND PROFIT
ON CORE POWER BRANDS



DRIVE PROFIT ON OUR
VALUE BRANDS



ACCELERATE AP BEER



SCALE IN BEYOND BEER



Strategic Pillars



Drive Commercial
Execution Closest to
Customers and Consumers



Modernize our Capabilities
to Unlock Efficiency and
Create Value



Champion Beer and Beer
Occasions in a Complex
Category and Regulatory
Environment



Evolve Our Culture to
Drive Ownership and
Community Impact

Cost Savings Discipline to **Fund the Future**

Dynamic Capital Allocation to **Fuel Growth**

- **PLANET: Steward Resources Prudently**

Eliminate waste in the use of water, ingredients, energy and packaging, and strengthen resilience for the future

TO SUSTAIN our license to operate and access to the resources needed for our products

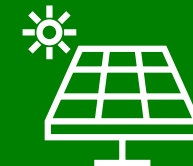
SUPPLY CHAIN MUST USE:

- Water efficiently
- More renewable energy
- Less packaging material
- Approved ingredients
- Risk tools to prioritize adaption and resilience

IMPROVE WATER
USE EFFICIENCY



IMPLEMENT ON-SITE
SOLAR PROJECTS



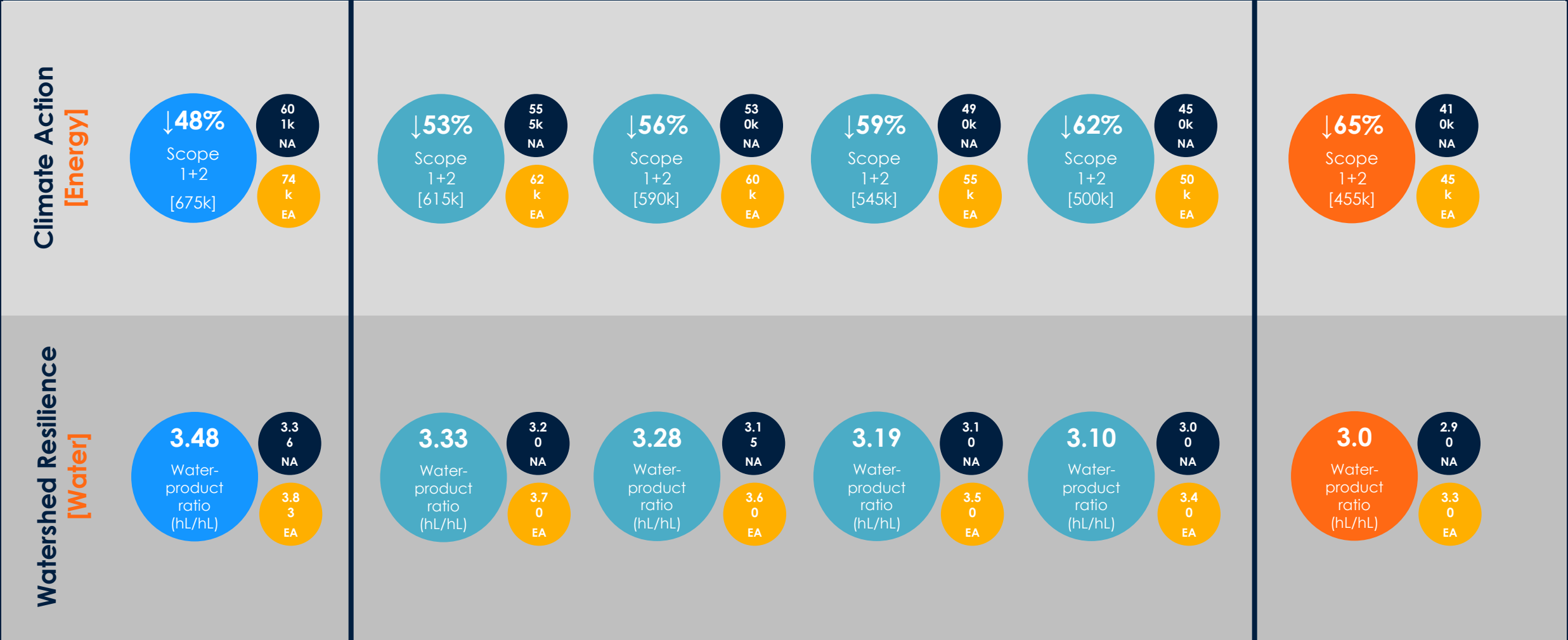
PACKAGING
STEWARDSHIP



REDUCE RISK
THROUGH RESILIENCY



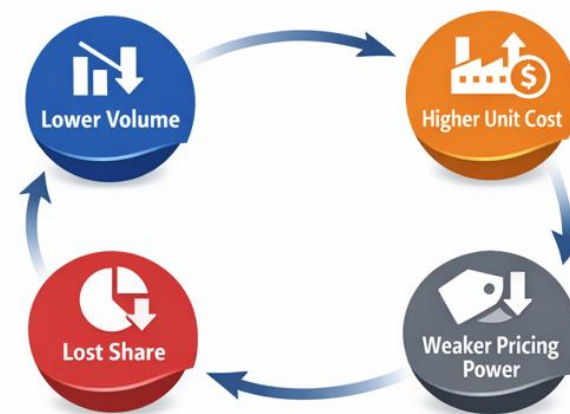
• High Level Glide Paths to 2030 Goals [Mfg Supply Chain]



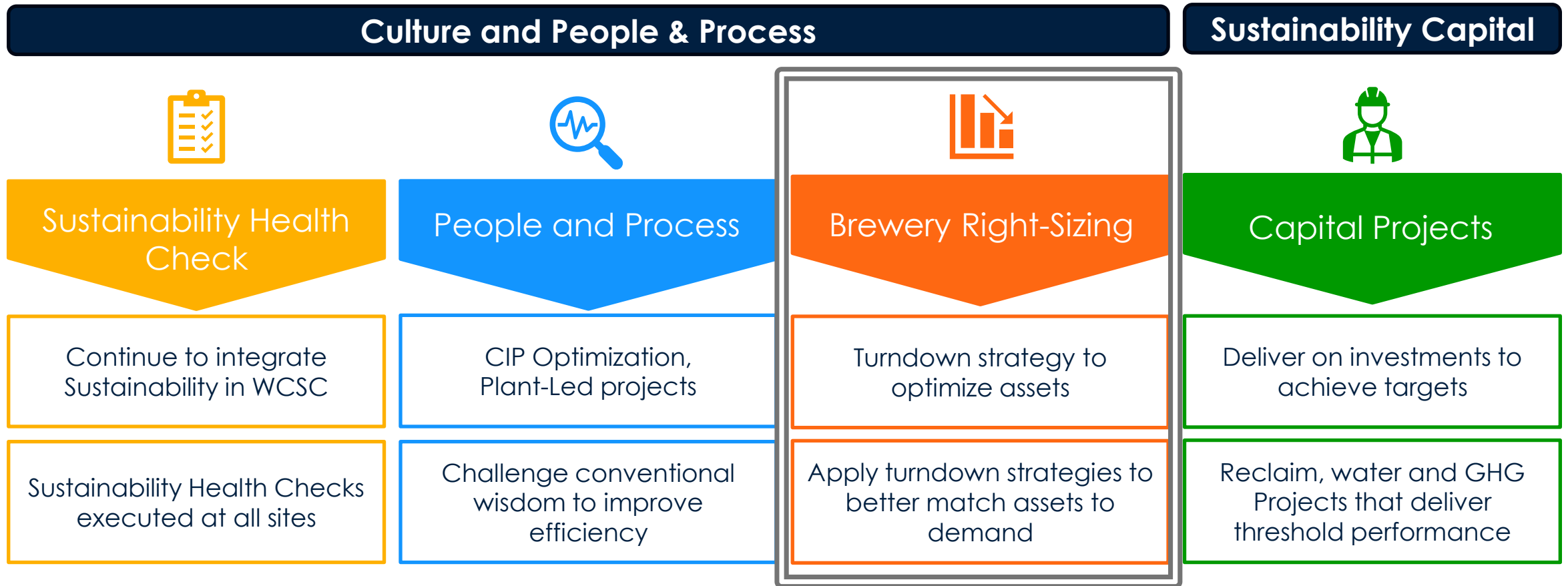
Molson Coors Historical Volume and Cost

	2017 to 2026
Volume (Bbls)	-32.5%
Brewery \$/bbl	+48.3%

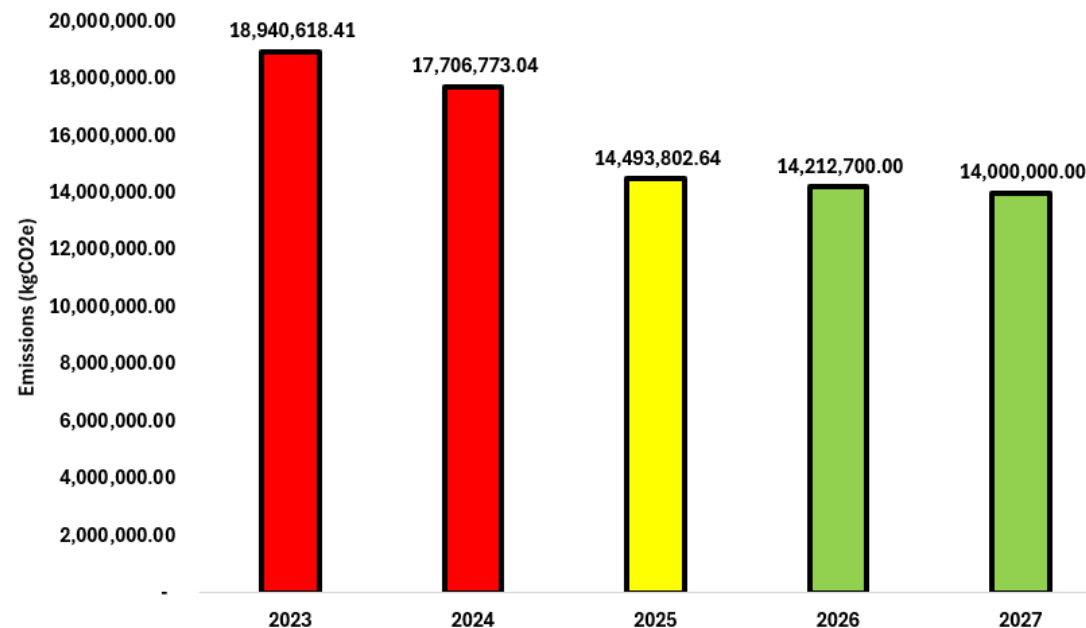
- As volume has declined cost have continued to rise
 - Lower volume → higher cost/hl
 - Higher cost/hl → weaker pricing power
 - Weaker pricing → lost share
 - Lost share → continued lower volume
- We need to stay competitive
- Cost optimization is essential for long-term viability in a lower volume reality



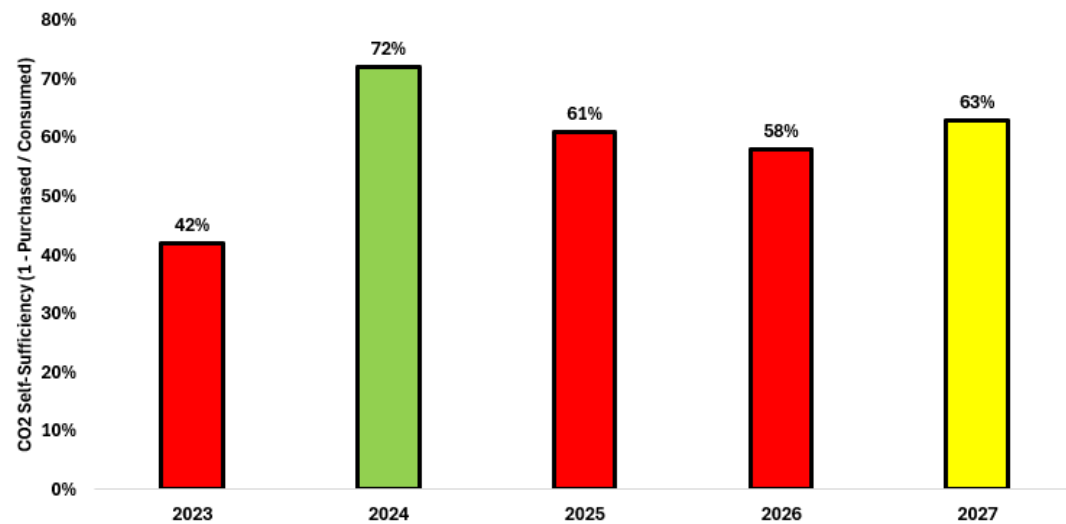
2026 Sustainability Strategy



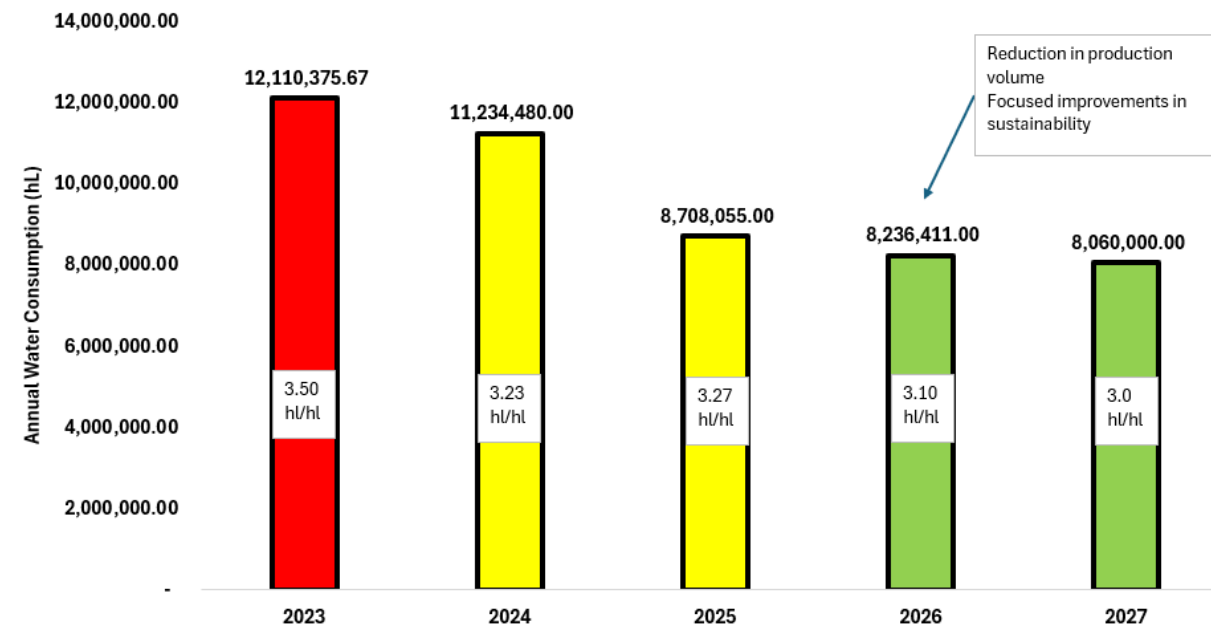
Emissions per year - Toronto Brewery



CO2 SS%



Water Consumption per year - Toronto Brewery





Hot Brewing Water Optimization Project

Energy Leaders Consortium

Module 1: Process Overview

Project Purpose

- **Project Background**

- Excess Hot Water is generated in the BH and discharged to drain
- Available storage capacity in the Seltzer Hot Water tank is underutilized while hot water from the BH is being sent to drain

- **Project Objectives**

- Enable Hot Water Transfer between BH, Seltzer, and CCIP systems to maximize recovery, storage and reuse of hot water

- **Project Benefits**

- Reduction of water consumption and wastewater discharge
- Reduction of steam demand in the BH, Seltzer and CCIP (Hot Caustic)
- Improve Hot Water Tank utilization
- Increased operational flexibility
- 135,000hL/yr of water savings
- 4300GJ/yr natural gas savings
- 218tCO₂e/yr in emissions savings

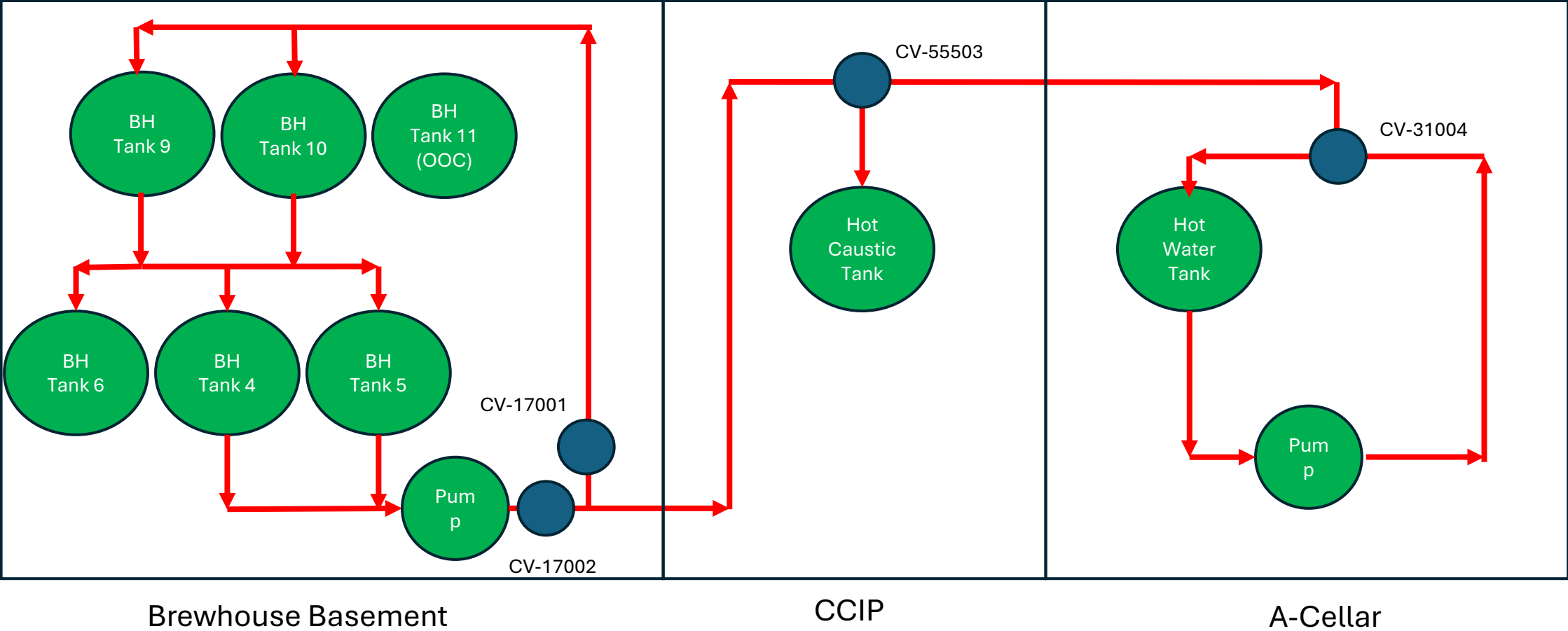
Module 1: Process Overview

Transfer Overview

- **Transfer #1:** Hot Water Transfer from Brewhouse Tanks to Seltzer Hot Water Tank
 - Volume Transfer (Operations Lead Initiated)
 - Tank 9, 10 Overflow Situation (Automatically Initiated)
- **Transfer #2:** Hot Water Transfer from Seltzer Hot Water Tank to Brewhouse Tanks
 - Volume Transfer (Operations Lead Initiated)
 - Empty Tank (Operations Lead Initiated)
- **Transfer #3:** Hot Water Transfer from Brewhouse Tanks to Hot Caustic Tank
 - Volume Transfer (Automatically Initiated)

Module 1: Process Overview

Block Flow Diagram



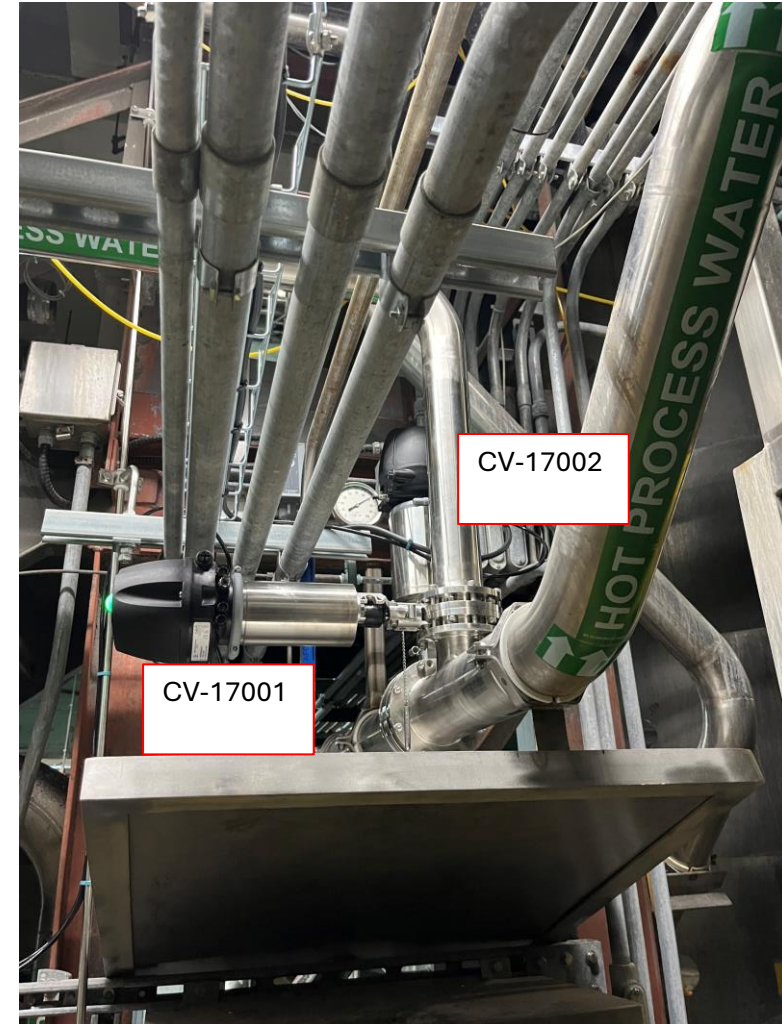
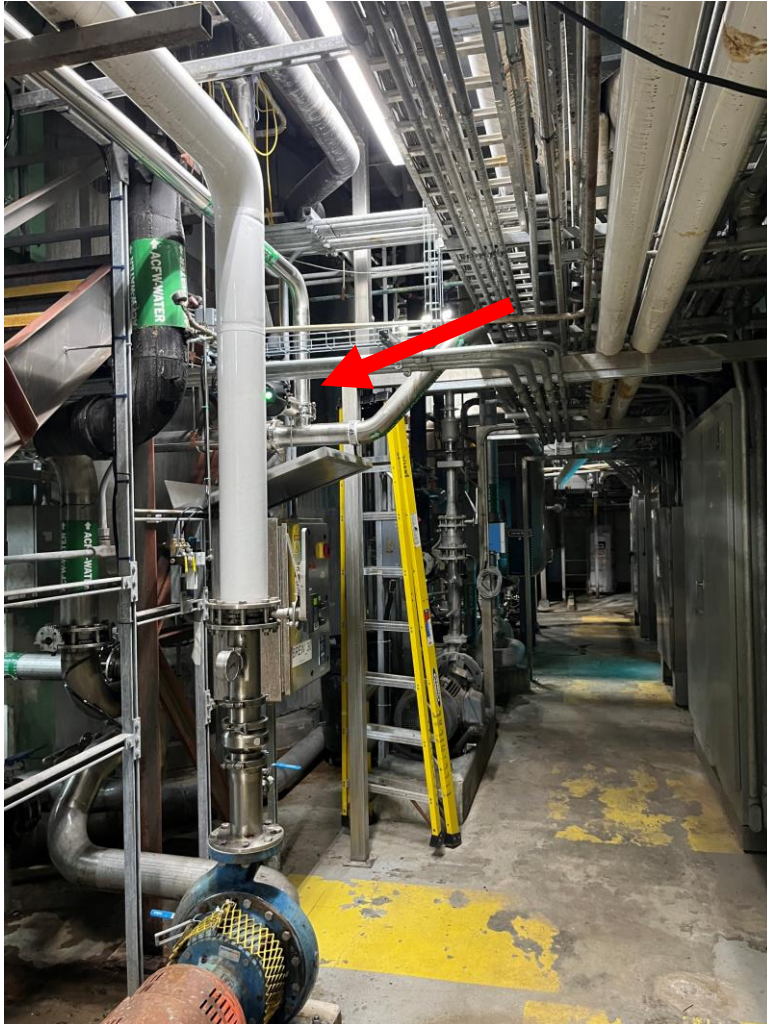
Module 1: Process Overview

Brewhouse Basement – Existing Equipment



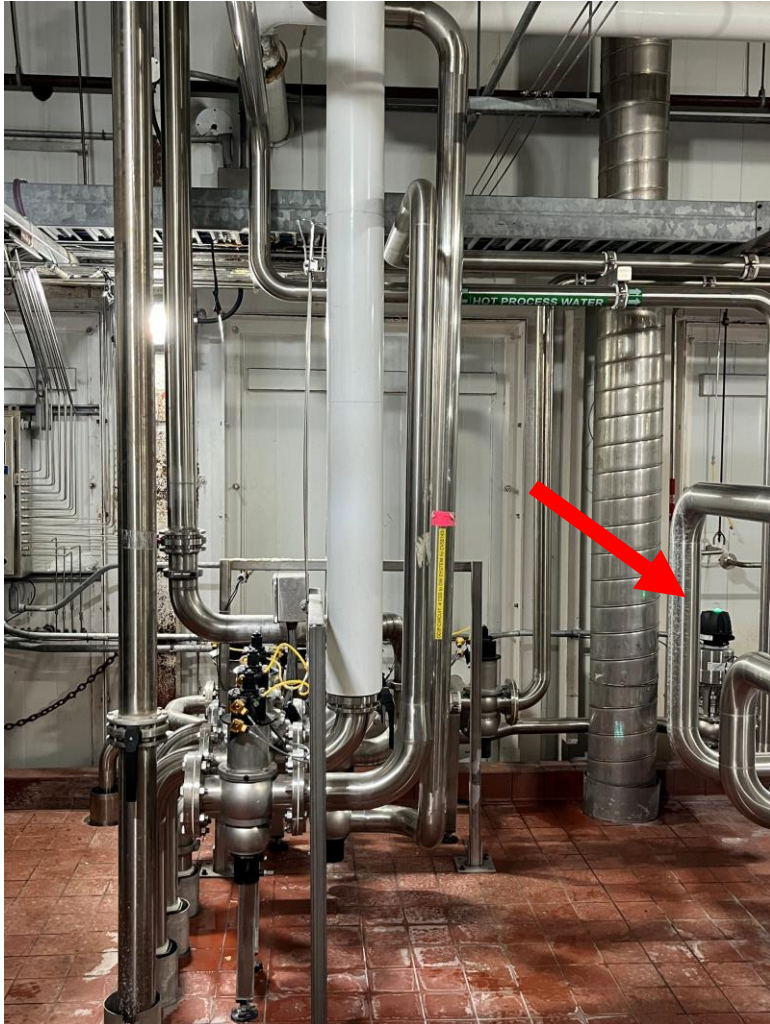
Module 1: Process Overview

Brewhouse Basement – New Equipment



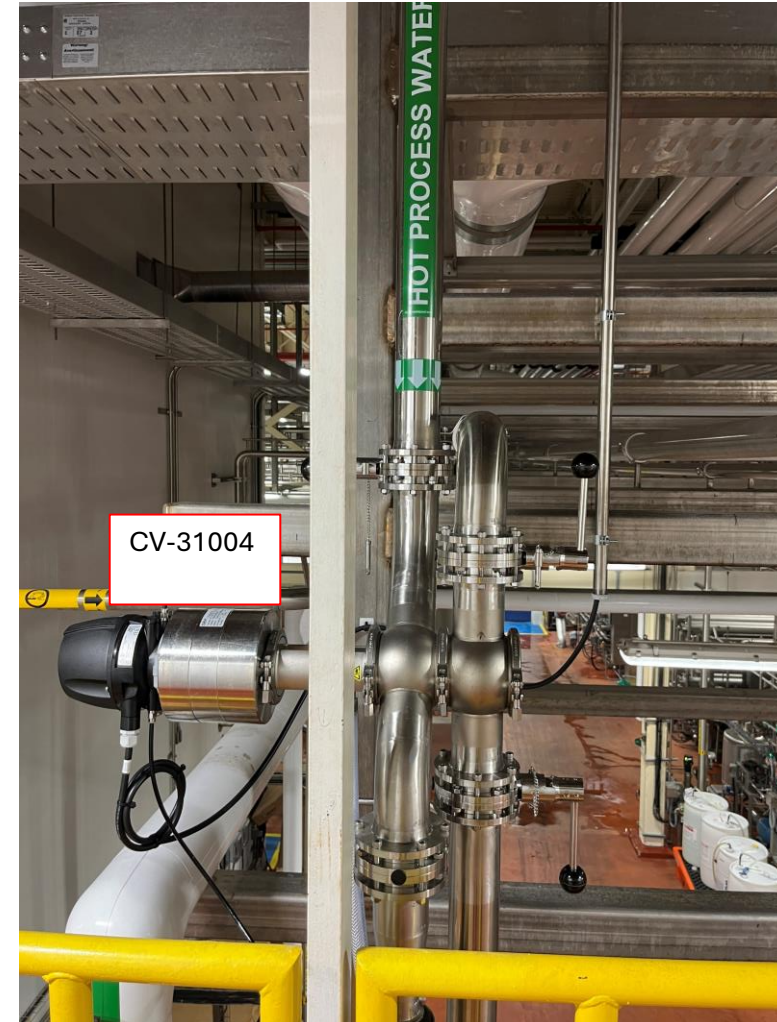
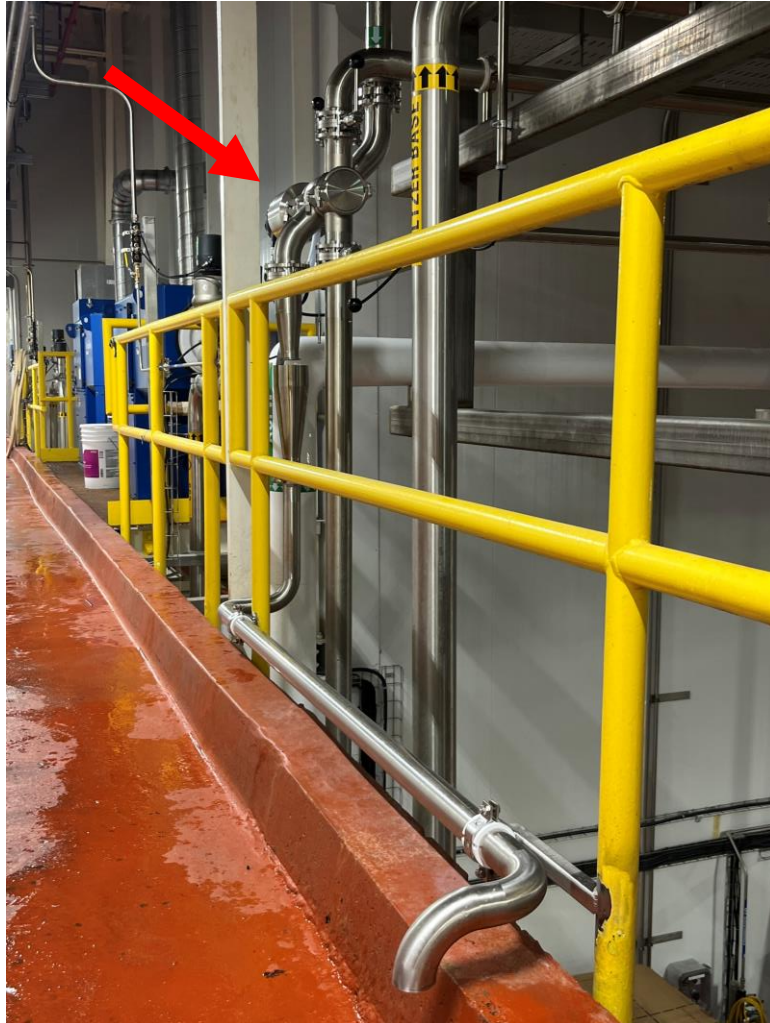
Module 1: Process Overview

CCIP 2nd Floor – New Equipment



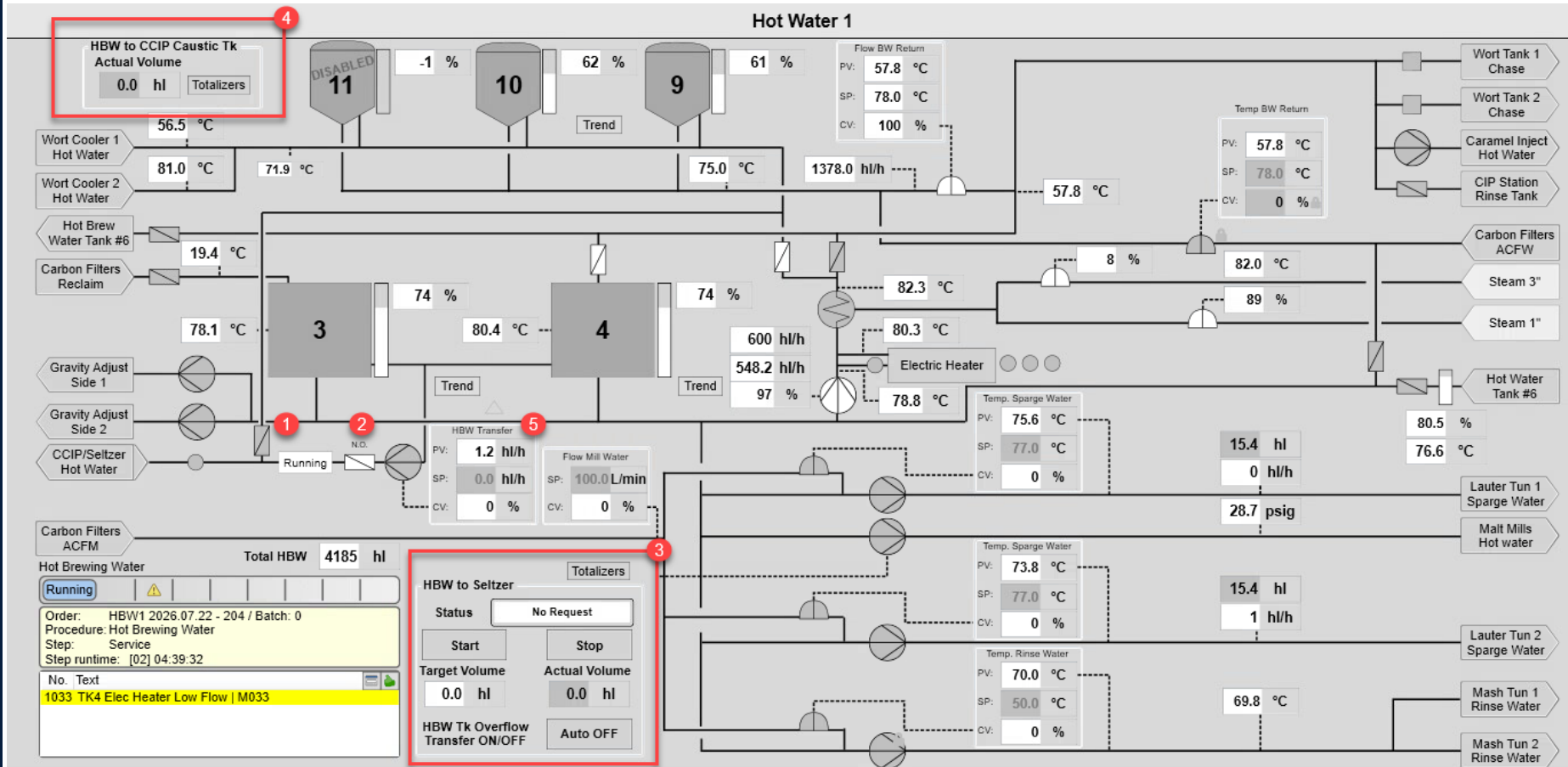
Module 1: Process Overview

A-Cellar – New Equipment)



Module 3: Controls & HMI

Hot Water 1 screen (Located: BCM > HBW1)

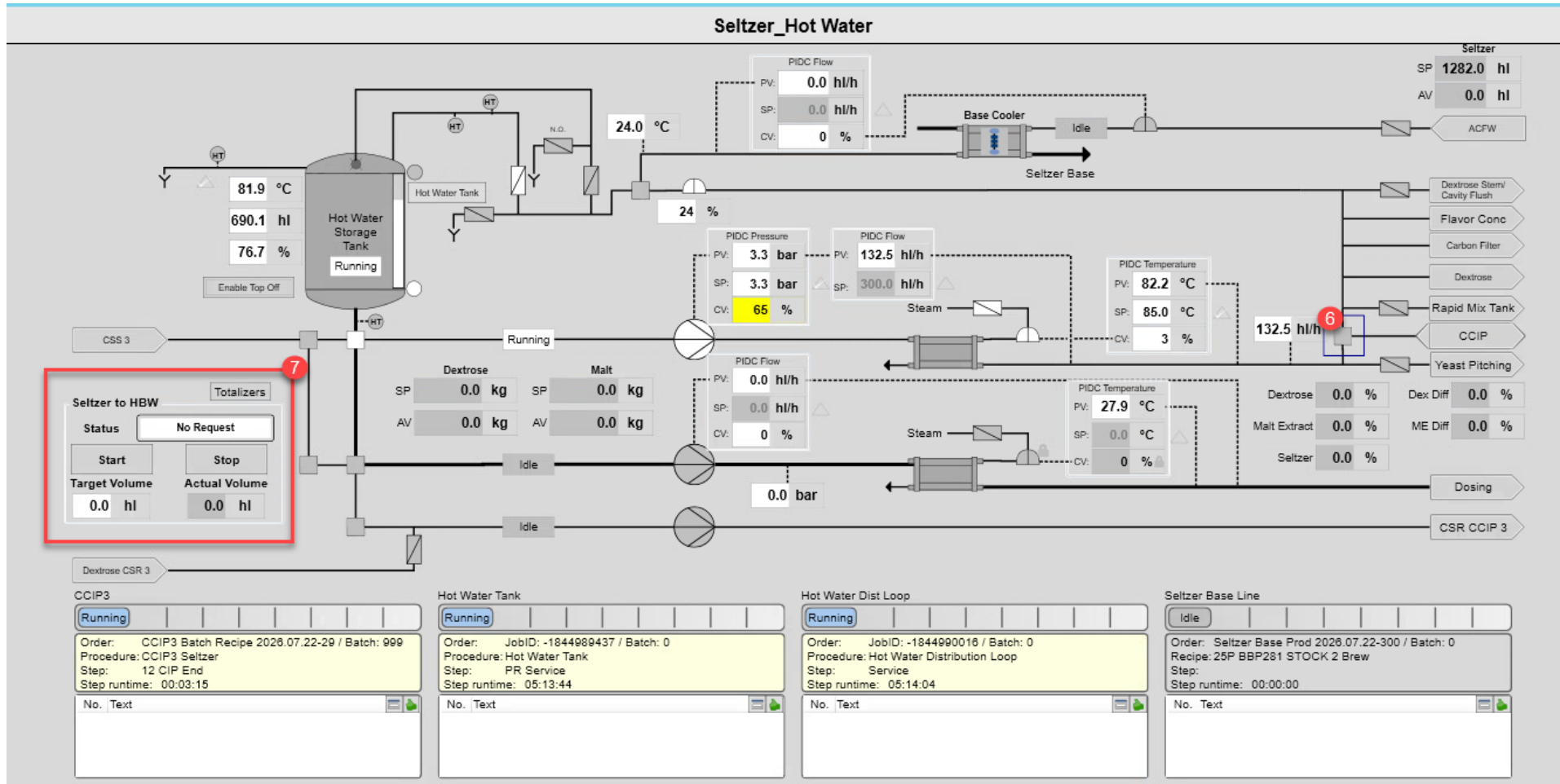


Changes:

- 1. CV-17001**
(New Equipment):
Block Valve, Seltzer
Hot Water Storage
Tank to Brewhouse
Outdoor Hot Water
Storage Tanks 9 & 10
- 2. CV-17002**
(New Equipment):
Normally Open
Block Valve,
Brewhouse Hot
Water Storage Tanks
to Seltzer Hot Water
Storage Tank
- 3. HBW to Seltzer
Status & Control**
- 4. HBW to iFix CCIP
Caustic Tank Status**
- 5. HBW Supply Pump
(MF17800)
Flow PID Control**

Module 3: Controls & HMI

Seltzer_Hot Water screen (Located: WPS > SEL_HW)



Changes:

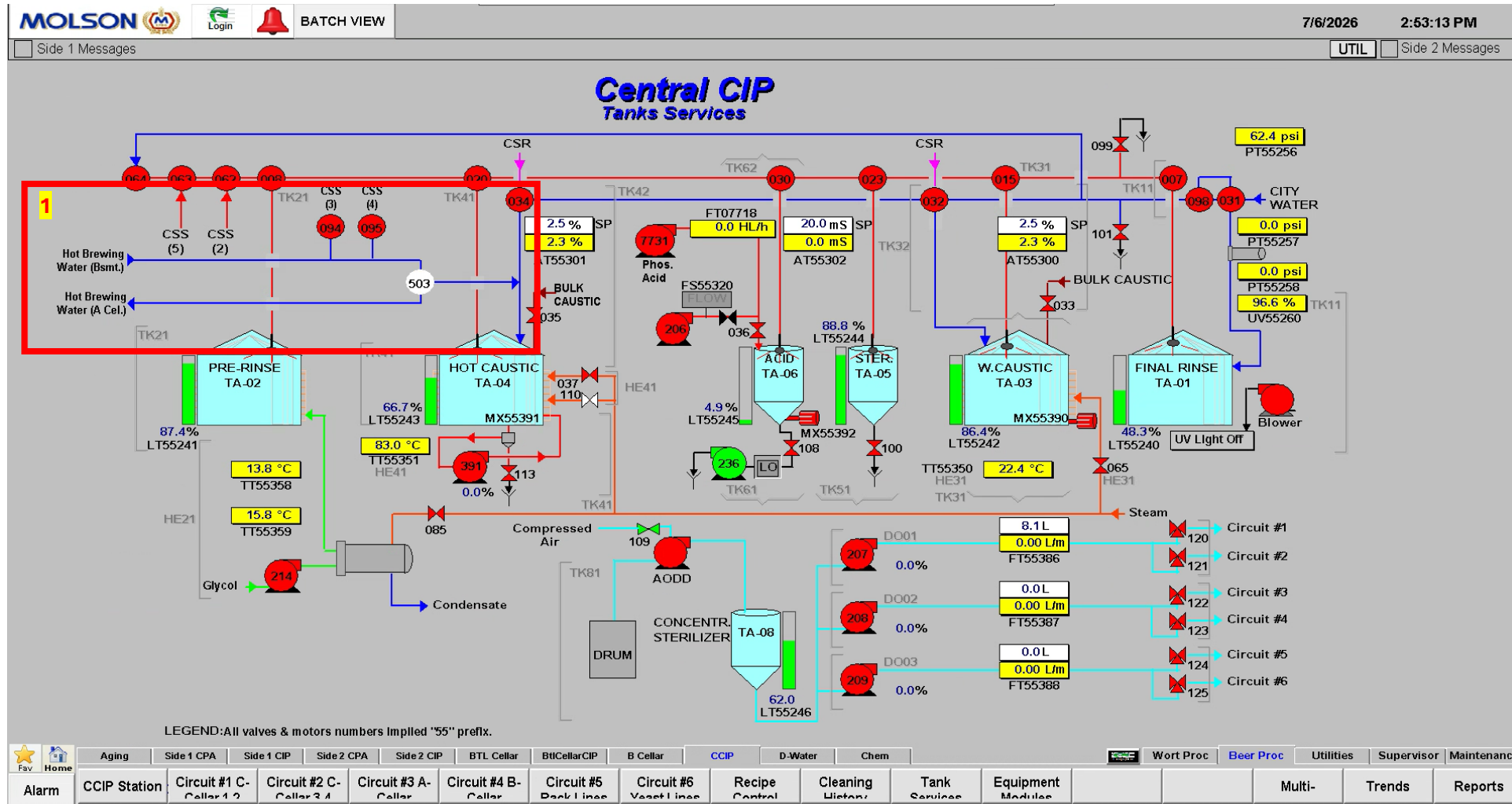
6. CV-31004

(New Equipment):
Tie-In of Brewhouse
Hot Water to Seltzer
Hot Water
Recirculation Loop

7. Seltzer to HBW Status & Control

Module 3: Controls & HMI

CCIP – IFIX Screen



1. CV-55503
(New Equipment)
Mix proof valve
Hot Caustic Tank

Feed to CSS (3) and
CSS (4)



Additional Projects Appendix

Energy Leaders Consortium

Brewhouse



Changes Made

1. Run Strategy:

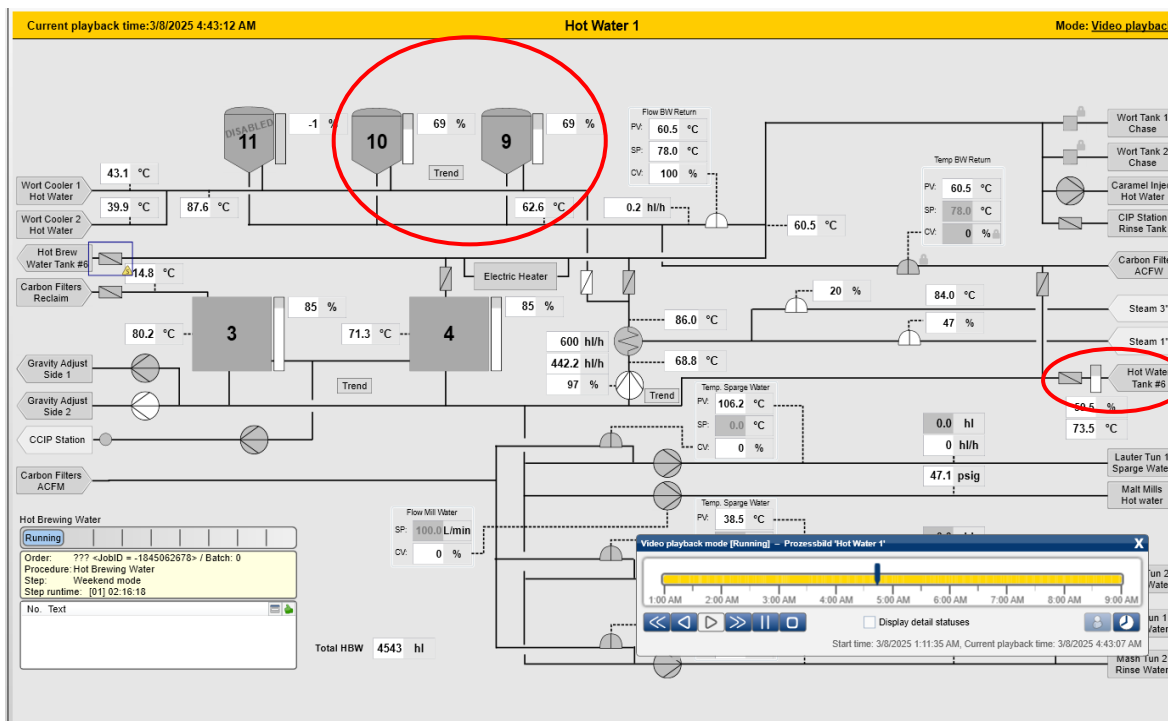
Operating 1 Brewhouse due to low volumes

Maximizing brews per day (from 8 brews/day to 9 brews/day)

2. Hot Water Tank #6 Overflow Buffer

: When tank #9 and #10 are $\geq 95\%$, hot water tank #6 will take the excess overflow from 50% to 95% (~250hl)

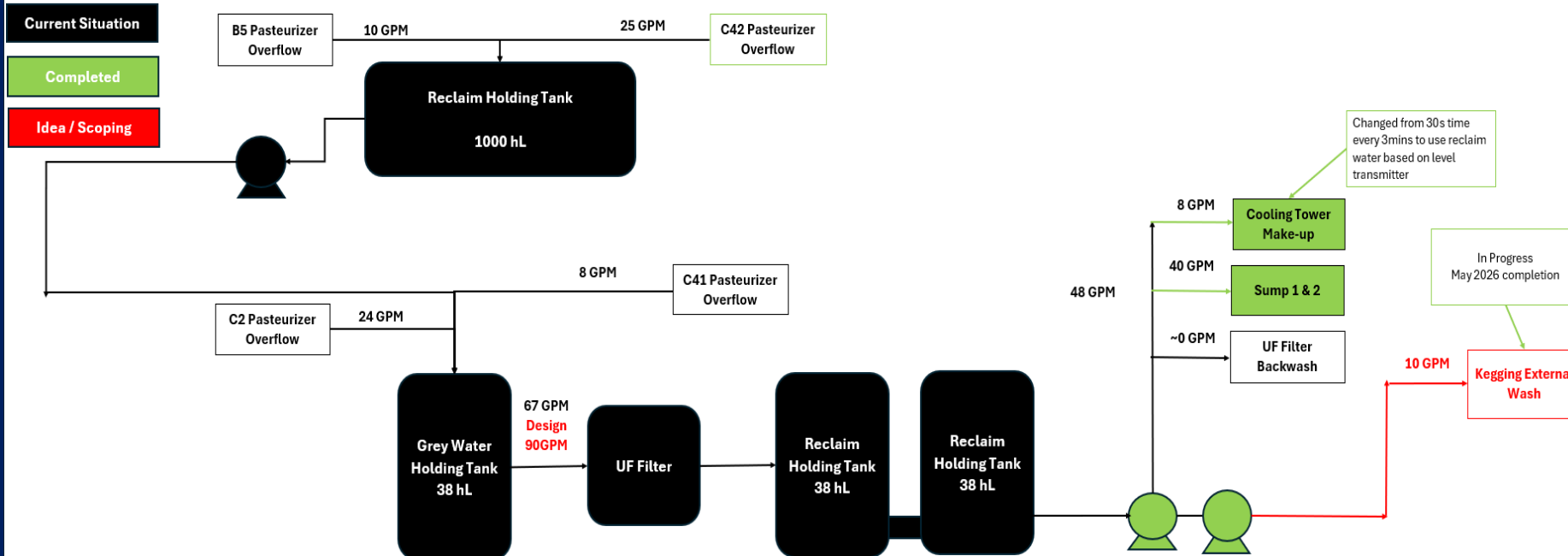
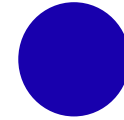
3. Seltzer/Brewhouse hot water tanks interconnection – Completed



Previous Setup

- 2 Brewhouse operation, 8 brews per day per brewhouse
- Overflowing hot water constantly from Wednesday to Friday

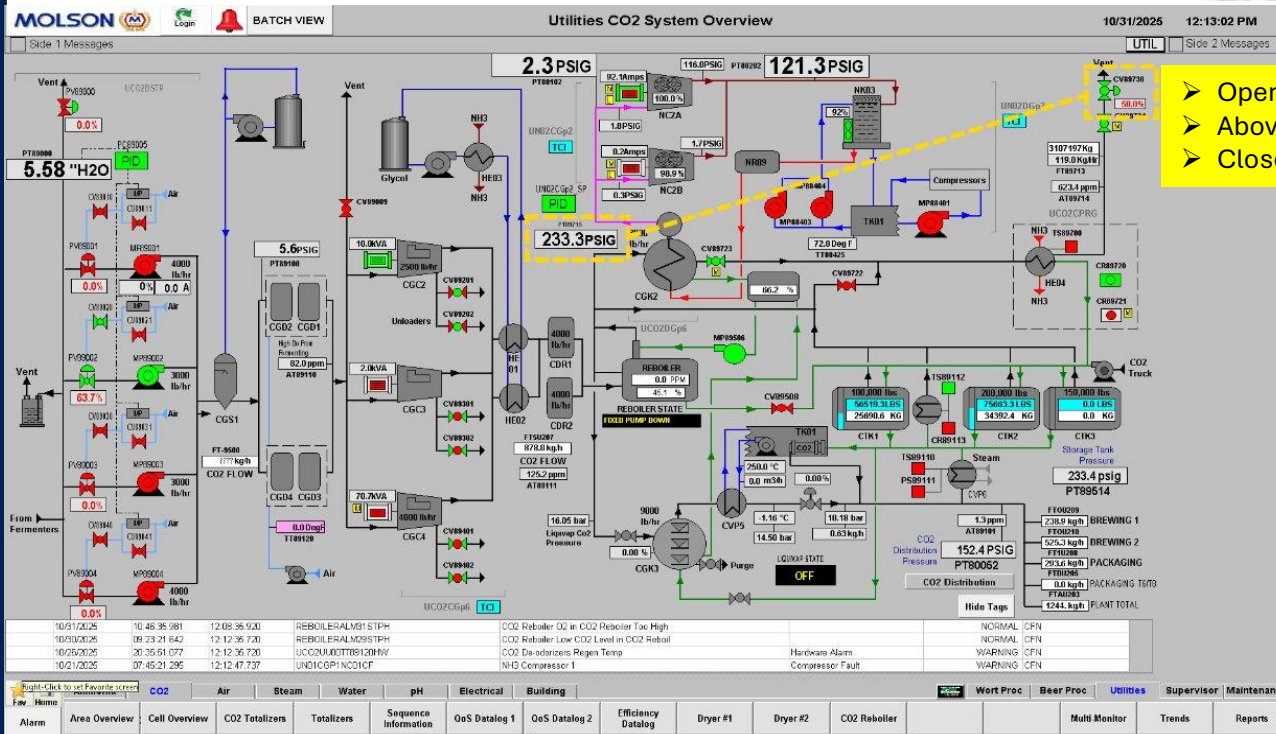
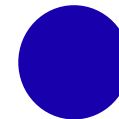
Reclaim System Master Plan



Next Steps

- C42 Reclaim, Evap. Condenser sumps reclaim make-up upsizing completed and kegging external wash expansion in progress
- Working on adding chlorine injection after UF to reduce bacterial growth
- **No further expansion until micro scores are within range**

CO2 Collection

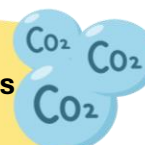


- Open @ 240 PSI to 50%
- Above 240 psi for 5 seconds, then open to 100%
- Close at 235psi

Previous Setup

- Condenser CO2 purge valve opens based on DO concentration at 500ppm

Estimated savings of 200,000kg of additional CO2 collection



Changes Made

- Purge valve opens based off a pressure setpoint of 240psig instead of based on DO setpoint
- Original logic: if the DO was higher than 500ppm, then the vent valve would open

This setup is standard across all breweries in the network

CCIP – aging tank CIPs & SIPs



Ongoing Project

1. Conducted SIP trial #1, micro results “too numerous to count” on anaerobes and aerobes
2. Conducted 2nd SIP trial with Ecolab support, results below. **Successful micro results**

PS 321 SIP Trial

Sample	Date/time	ATP (RLU)	Type	Volume	pH	Na	PCA	WLN	RRn
Final rinse @ tank	B25.26 @ 10:00	23	water	100mL	7.35	20	0	1 y	2 wy, y
Under Manway	B25.26 @ 10:00	18	swab	0.2mL spin			0	0	0
Sidewall	B25.26 @ 10:00	38	swab	0.2mL spin			0	0	0
Bottom	B25.26 @ 10:00	343	swab	0.2mL spin			0	0	0

Current Setup

- CIP aging tanks after every use
- Water consumption ~200,000 hl/yr
- Hygiene concerns associated with the existing system

3. Recommendation is **to change pre-rinse on CIP from 15 minutes to 5 minutes** after visit
4. Trialed 5-minute pre-rinse, somewhat successful, but some deficiencies to be resolved

Next Steps

- > Continue to conduct at least two more CIP trials with the reduced pre-rinse prior to implementation
- > Warren/Cody/Austin working through hygiene actions prior to full implementation to eliminate any hygiene risk

C2 Pasteurizer



What did we find?

Buckling Cans issue
PU setpoint is 12 as per Canadian standard
After quenching, the temperature spikes 2-3°C above the spray temperature setpoint for 10-15mins



Changes Made

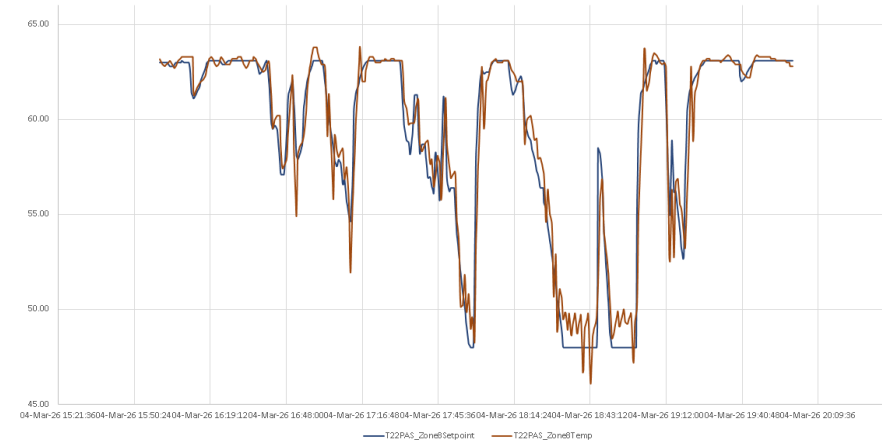
- Pasteurizer CLs created in POKA
- UPS on buckled lids -> Reduced variance between setpoint and actual spray zone temperature

Next Steps

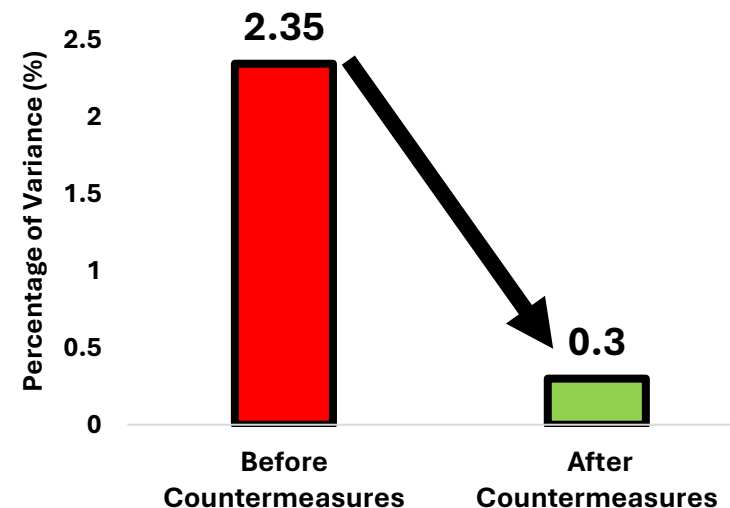
- Working through updating standards around PMs and CILs as well as enabling the operators & trio to view the data for spray zone temperatures for each zone
- Overfilling checks to be validated
- Pasteurizer Recipes to be created, but **not implemented until bottle cellar hygiene improves**

Area : Packaging / Presenters : Chris, Cody

Upper Hot Zones (Top Deck)



VARIANCE OF PRODUCT TEMPERATURE COMPARED TO KRONES RECIPE



C42 Packaging Line



What did we find?

Excessive daily water consumption (3000 hl/day) on the C42 pasteurizer
Originally designed to have a chiller as the cooling source, but opted for cooling tower cooling
Pasteurizer Overflow system was not working

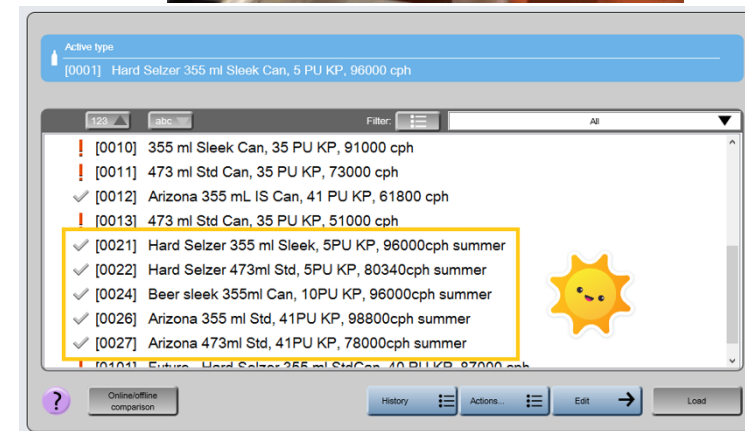
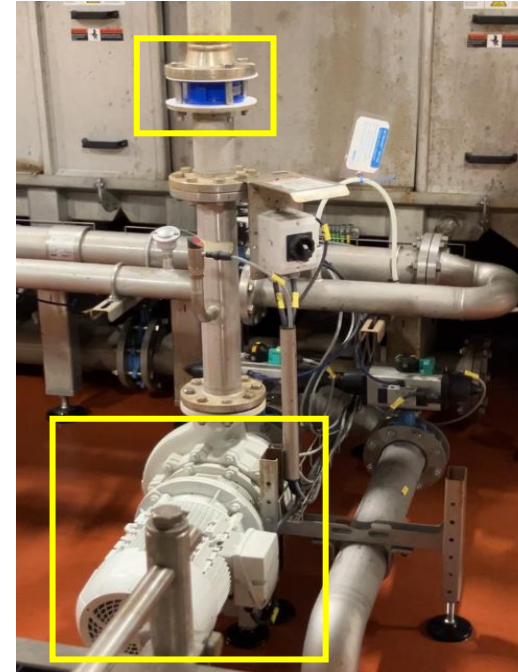


Changes Made

- N2 Conversion to Seamer (carbonated beverages)
- BOT increased from 20°C to 26.8°C
- Reclaim pump changed from soft starter to VFD, it was tripping the soft starter and causing it to fail

Next Steps

- Improve CILs and CLs on the pasteurizer to find defects
- Summer Readiness Checklist for the pasteurizer



Q/A Session

A blue-tinted photograph of three people walking through a large industrial warehouse. On the left, a man in a white hard hat and safety vest. In the center, a woman in a dark dress and boots. On the right, a man in a suit and tie. They are walking towards the camera, with high industrial shelving on the right and structural beams on the left.



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