

# WELCOME

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## Monthly Building Coordinator Meeting Via ZOOM

January 17, 2024



# Agenda

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## **FM Cold Weather Protocol:**

*Julie Sychra - Facilities Management Director, Building Operations & Maintenance*



## **Building Coordinator Meeting Feedback Survey Results:**

*Stephanie Rourke – Facilities Management Manager, FM@YourService and Building Coordinator Program*



## **ENGIE North America at UI :**

*John Weyer, ENGIE North America Distribution Plant Manager*

# FM Cold Weather Protocol



Updated January 5, 2023

## IOWA

Facilities Management

### Cold Weather Protocol

Cold Weather Protocol Steering Group Members:

- FM @ Your Service Manager
- Senior Manager of Operations and Maintenance
- Director of Operations and Maintenance
- Manager of Controls Engineering
- Manager, Maintenance Planning

Annual Preparation Cadence:

- By Late November/early December:
  - Steering Team reviews Cold Weather Protocol
  - Building Operations & Maintenance and FM@YS team review of Cold Weather Protocol
  - Update the template of the planned work order project
    - Review of prior year's Cold Weather Event projects to inform creation of the planned work orders for the current year (review/updates to approved project)
    - Intentional focus on any areas currently impacted by construction or maintenance projects, vulnerable areas, etc.
- December:
  - Cold Weather Protocol presented at Building Coordinator Meeting\*
  - Refresher communication for on-call team on Cold Weather Protocol

Preparatory Actions when Trigger Event is forecasted:

- When outside air temperature is forecasted below 0F for longer than 24 hours (Accuweather), a steering group meeting will be scheduled (Director responsibility) to discuss which of the following risk mitigation activities are relevant for the given cold weather situation:
  - Resourcing Considerations:
    - Assign designee(s), as necessary
    - Addition of a secondary on-call team member into standby status (FM@YS Manager)
    - Hotel rooms secured for primary and secondary on-call members (FM@YS Manager)
    - Managers secure volunteer lists of team members who will be available to take calls as needed. FM@YS manager compiles this information for the on-call

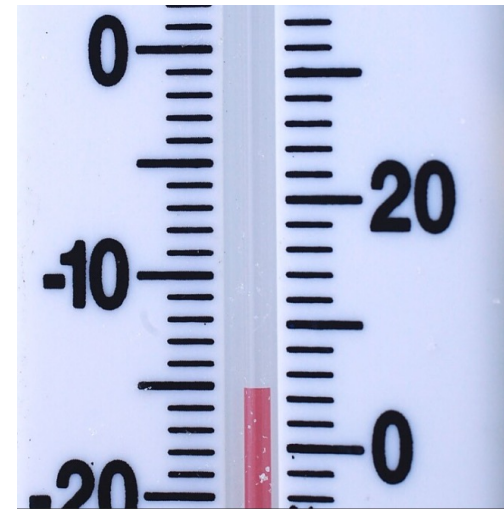
# IOWA

Facilities Management

# A Data-Driven Approach:

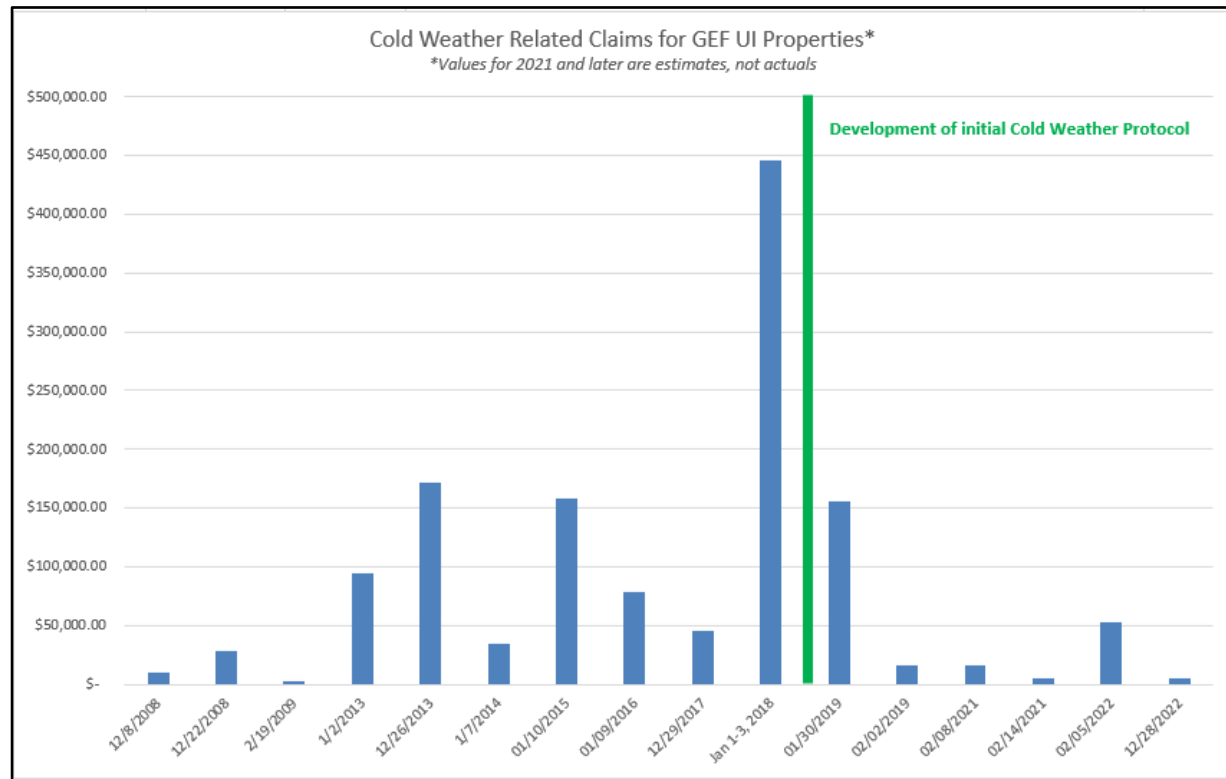
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- Buildings are vulnerable to damage during extended periods of sub-zero temperatures
- FM leverages a data-based trigger to implement mitigation plans once the forecast shows more than 24 hours below 0 degrees Fahrenheit.



# Continuous Improvement:

→ Initial version of the Cold Weather Protocol was developed after 2018 and has been evolving ever since:



# Annual Cadence Established:

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## Late November/early December:

- Steering Team reviews Cold Weather Protocol
- Building Operations & Maintenance and FM@YS team review
- Update planned work orders:
  - Review of last year's notes
  - Addition of any current building-specific vulnerabilities

## December/January:

- Building Coordinator Meeting presentation
- Review with On-Call Team



# Mitigation Planning:

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## Theme 1: Resource Considerations

- Addition of a secondary standby team member
- Secure hotel room(s)
- Compile area resource and controls team lists
- Addition of BAS reviews



# Mitigation Planning:

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## Theme 2: Communication Considerations

- Cadence of daily meetings
- Notification to key partners that FM is entering Cold Weather Protocol Mode:
  - Facilities Management team
  - **Building Coordinator Group**
  - Risk Management
  - Engie
  - Campus Safety





# Mitigation Planning:

## Theme 3: Workload Organization Considerations

- Promote Cold Weather Project planned work orders
- Cold weather FDD (fault detection & diagnostic) reviews
- Removal of BAS schedules
- Override report reviews
- Outage/shutdown delays

001			
0300, JB, JB: Cold Weather Building Walk (please note any observations/outages)			
Checkpoint	Value	Description	Extra Description
1.	COMPLETE	Check outside of building for open windows.	
2.	COMPLETE	Check outside air intakes and vents for blockage or obstructions.	
3.	COMPLETE	Check building pressure with a simple paper test. If negative, review BAS for issues	
4.	COMPLETE	Check entryways and exterior stairwells for cold areas and ensure heaters are operational.	
5.	COMPLETE	Check mechanical spaces.	
6.	COMPLETE	Check problem areas throughout the building.	
7.	COMPLETE	Check drain to ensure it is not backing up (please note any observations/outages) supplies are in basement for clearing drain.	
DATE	12/21/22	Date Completed	
DATE (2)	12/22/22	Second date completed if applicable	
DATE (3)	12/23/22	Third date completed if applicable	12/28/2022

# Your Partnership is Vital!

**From:** James, Lisa M <lisa-james@uiowa.edu>  
**Sent:** Thursday, December 08, 2022 1:32 PM  
**To:** Rourke, Stephanie S <stephanie-rourke@uiowa.edu>  
**Subject:** RE: BU

Hi Steph- this re  
 open- it droppe  
 it must have be  
 We had everyon  
 will not latch. T  
 office.  
 Yes subm

**From:** Rourke, Stephanie S <stephanie-rourke@uiowa.edu>  
**Sent:** Friday, December 9, 2022 11:35 AM

**To:** Jame  
**Cc:** Schor  
**Subject:** 23-754820

Created By MICHELLE MARVEN On 12/13/22 1:48 PM  
 Last Edited by URIAH BARNES On 12/14/22 3:58 PM

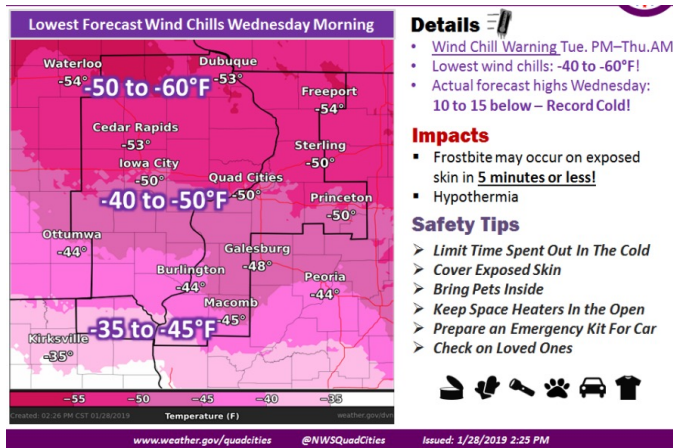
Wl- multiple rooms in SH and SW. 3rd and 4th floors -Some windows will not latch- top window has shifted down and top/bottom windows will not line up in order to make latch functional. (More)  
 Contact: Lisa James 319-335-4550

Status: **JOB COMPLETE**  
 Project  
 Customer Request: 117100  
 Desired Date  
 Budget: \$0.00

Date	Room	Person	Category	Description
Dec 14, 2022 2:31 PM	PHORESOW	PATRICK HORESOWSKY	CLOSEOUT	Secured all windows on list. PH
Dec 13, 2022 2:18 PM	PVANELSW	PETER VAN ELSWYK	GENERAL	Room Number / Window 4203- 2nd window 4201- both 4199- left window 4189- desk in back, right window 4218- left window 4188 4184- right bank of windows 4163- right bank of windows 4164- both 3192 and 3194- have plastic covering, not checked 3194 3203- right and left 3185- right window 3183 3159- 1 window back left; right window in bank 3165A Front desk- left back cubicle, right window

# The Process Works!

## 2019 Polar Vortex:



## February 2021 Extreme Duration & New Records:

**KCRG-TV9 First Alert Weather**

This cold weather stretch has been intense, but also extremely long-lasting. Records continue to fall. Here's a sampling of some of the records either broken or possibly matched thus far. This is the coldest February start since 1936 at Cedar Rapids! - Kaj

**11th NIGHT OF -2 OR COLDER**  
CEDAR RAPIDS

**NEW FEBRUARY RECORD BREAKS PREVIOUS OF 10 NIGHTS IN 1899**

**KCRG-TV9 First Alert Weather**

Tuesday we broke our string of below zero hours, jumping above zero at 1 pm. -Joe

**CONSECUTIVE HOURS BELOW ZERO**

**1AM FRI - 1PM TODAY**

**108 HOURS**

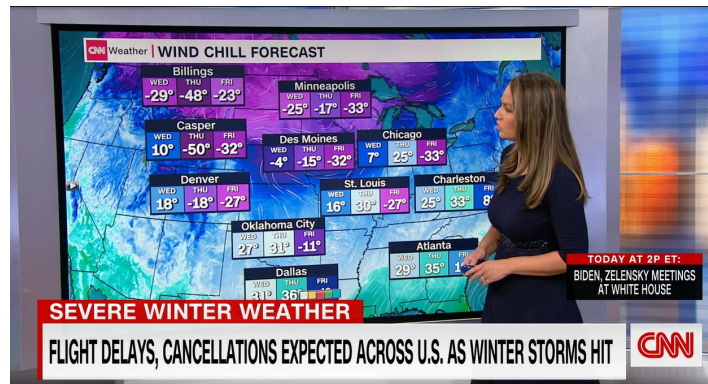
**KCRG-TV9 First Alert Weather**

**A COLD FIRST HALF OF FEBRUARY**  
CEDAR RAPIDS

**Avg Temperature of 3.2 Degrees**

**COLDEST SINCE 1936**

December 2022 “Once in a Generation” storm:



**Significant Winter Storm This Week** December 22, 2022 4:21 AM

**Major Impacts to Holiday Travel Expected**

**Key Messages**

- Significant winter storm expected to continue through Saturday morning
- Snow to end this morning into the afternoon before strong winds begin. This could give the false sense of improving conditions!
- Northwest winds will quickly increase Thursday night, leading to blizzard conditions (whiteout) through Saturday morning with gusts of 40-50 MPH!
- Travel, especially in rural areas will become difficult, if not impossible Thursday night and Friday.
- Temperatures will drop rapidly after the snow ends with dangerous wind chills of 20 to 40 below zero Thursday afternoon through Saturday AM.
- We are monitoring the need to start the blizzard warning sooner. Blizzard conditions could be seen this afternoon

**What Has Changed**

- Winds (30 to 40 MPH gusts) now expected as the snow ends. Those out shoveling should expect wind chills of 15 to 30 below zero. Cover all exposed skin and bundle up!

**Next Scheduled Briefing**

- No new webinar scheduled. Briefing packets will continue

**Winter Storm Warning** **Blizzard Warning**

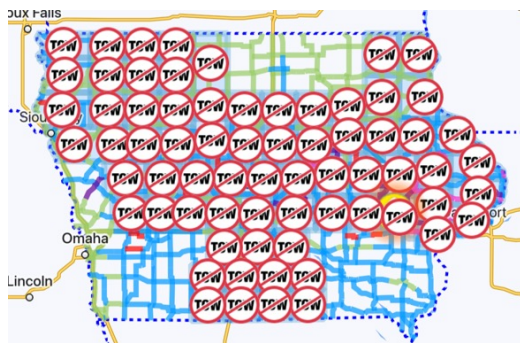
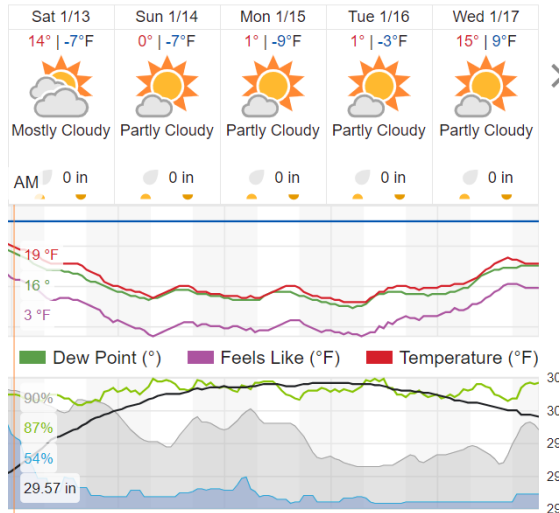
**Latest Winter Weather Headlines**

**National Weather Service Quad Cities, IA/IL**

**IOWA**

Facilities Management

# January 2024



- Noteworthy Items:
  - One fan coil freeze-up with impact to 4 rooms (VAN)
  - Two fire impairments, caught early enough to avoid building damage (MERF, BB)
  - Intermittent power issues, great team work with P&T to secure generator fuel (BB)
- Mitigation Plans Remain in Place All Week:
  - Cold weather inspection work orders
  - Building schedules removed
  - Planned air handling unit shut-downs rescheduled
- Looking Ahead to Next Week:
  - Thaw Protocol

# Thank You!

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## Building Coordinator Survey Results Summary

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# And the survey said..

Stephanie Rourke - Manager - Facilities Management FM@YourService and Building Coordinator Program

January 17, 2024

# Overview

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- BC Experience Survey (one time) October/November 2023
- How can we support Building Coordinators better?
- We wanted feedback on:
  1. Covered content
  2. Communication format
  3. Resources that add value to the BC role
  4. New ideas for presentation content
- Thank you for your participation! **43.8%** (79/180) response rate

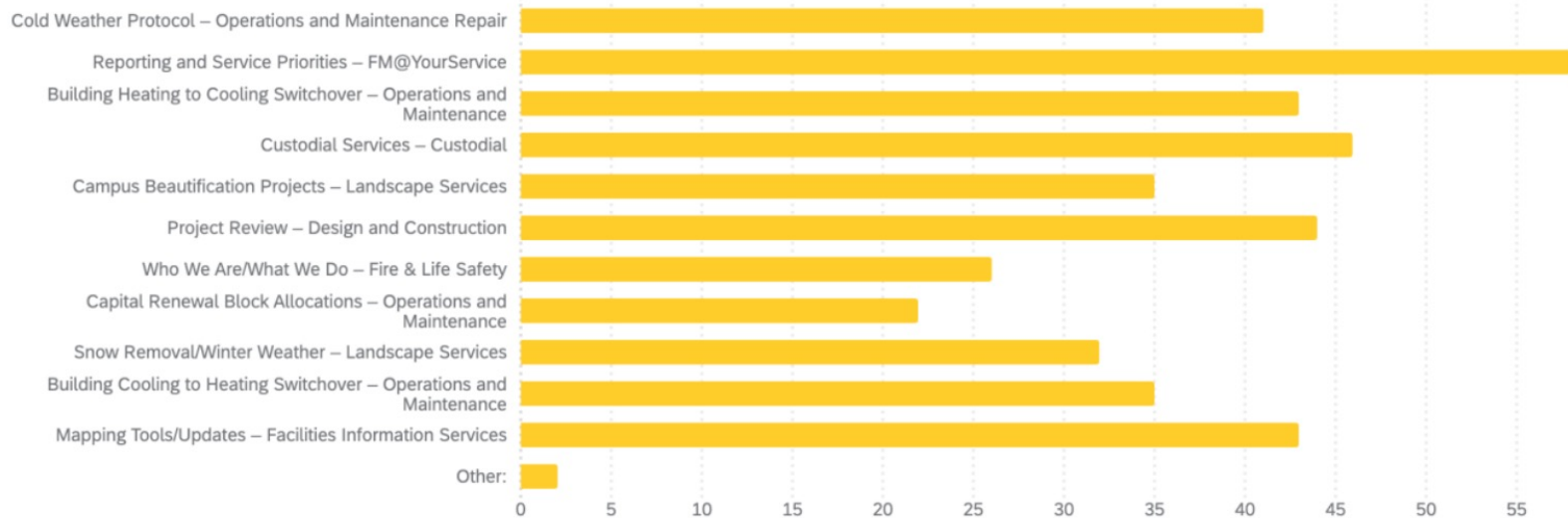
# Summary of Feedback

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- **Seven** total questions
  - All questions received a **75%+** positive or satisfactory response rate
- 
- **89%** found Building Coordinator meeting presentations are helpful
  - **97%** indicated that the virtual format is effective
  - **87%** indicated that the time, duration, and frequency works
  - **78%** find the BC webpage to be a resource to their roles



# Topics Building Coordinators find helpful



- 1. Reporting and Service Priorities – FM@YourService (58 votes)
- 2. Custodial Services – Custodial (46 votes)
- 3. Project Review – Design and Construction (44 votes)

# Topics Building Coordinators indicated wanting to see more of



- Campus project updates and event notices
- Campus planning
- Custodial

*Text size indicates the the popularity of the topic being suggested based on number of submissions*

# Final Survey Comments

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- Most respondents indicated contentment with the program as-is
- There was an overall desire for the following in the end-of-survey comments:
  - More learning opportunities to increase building knowledge
  - Support with questions to help BC's thrive in their roles

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**Questions?**  
**THANK YOU!**

Feedback welcome by emailing [stephanie-rourke@uiowa.edu](mailto:stephanie-rourke@uiowa.edu)

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# ENGIE North America at UI

**Building Coordinator's Meeting, January 17, 2024**

John Weyer, BSEE, MBA  
Distribution Plant Manager  
ENGIE North America at The University of Iowa  
[john.weyer@engie.com](mailto:john.weyer@engie.com)  
M: 319 560 4133

**IOWA**

**ENGIE**

# Who is ENGIE at UI?



- Former UI Utilities department of UI Facilities Management,
- Operating UI's utility production and distribution systems on the main campus and Oakdale:
    - Steam
    - Chilled Water
    - Electricity
    - Water
    - High Quality Water



**UNIVERSITY OF IOWA**  
ENERGY COLLABORATIVE

- [ENGIE North America](#) is the Utilities Operator for the [University of Iowa Energy Collaborative](#) (UIEC). UIEC is the Concessionaire selected by UI for the P3 (UI Utilities "[Public-Private-Partnership](#)") in December 2019. Operations transitioned March 2020.

# Concession Agreement

**IOWA**



\$1.165B up-front payment



Coal-free by 2025



Deliver reliable electricity, water, heating, and cooling services to the UI campus community.  
• Enforced thru Key Performance Indicators (KPIs)



Invest in the University's core missions of teaching, research, and scholarship



Prepare students to live and work in the 21st century through direct engagement and education in sustainable energy technologies and processes



Facilitate knowledge exchange among the campus community and the State of Iowa, Nation and World



**UNIVERSITY OF IOWA**  
ENERGY COLLABORATIVE

**IOWA**

# ENGIE NA

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## → ENGIE North America

- 4,500 employees
- Headquartered Houston TX
- Providing energy services to:
  - K-12 and Community College Education
  - Higher Education
  - State and Local Government
  - Federal Government
  - Hospitals and Medical Research
- Renewable grid wind, solar and storage projects
- Electric and gas energy supply retailer





# ENGIE NA

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## → ENGIE North America

- **Energy Solutions** fleet operates district energy or combined heat & power (CHP) systems at:
  - **The University of Iowa**
  - The Ohio State University, Columbus
  - Harvard Medical School and five affiliated hospitals and research institutions, Boston
  - University of Maryland, College Park
  - Nassau District Energy, Nassau County, Long Island, NY
  - Coors, Golden CO
  - United Launch Alliance, Decatur AL
  - Georgetown University, Washington DC
  - Howard University, Washington DC



# ENGIE Globally

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## → ENGIE Global

- 96,000 employees
- Headquartered Paris, France. Key player in European energy.
- Operates in dozens of countries worldwide, on 5 of 7 continents.
- Solar, wind, natural gas and electricity networks, district energy, thermal production.
- Committed to accelerate the transition towards a carbon-neutral world.
  - Target of Net Zero Carbon by 2045, for us and for our clients

# ENGIE at UI

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## → Demographics:

- Approximately 130 employees total, including student interns. About 110 in Operations. Balance in administration, purchasing & accounting, IT, data management, environmental, safety, capital projects.
- In March 2020, ~80% of UI Utilities employees transitioned to ENGIE. We continue to have a strong core of employees from UI.
- ~10 full-time positions currently open.
- ~15 part-time students currently employed.
- Staff at Main Power Plant, Oakdale Power Plant, Water Plant, West Campus Chilled Water Plant, Madison Street Services Building and University Services Building.





# ENGIE Operations Roles and Emergency Contact Numbers (December 18, 2023)

Working Hours Contact    After Hours/Backup Contact

**Director Energy Delivery**  
Garry Patricio  
864-534-4287



**Distribution Plant Manager**  
John Weyer  
319-560-4133



**Power Plant Manager**  
John Bergerud  
319-594-1713

**Water Treatment Services Manager**  
Jim Zaruba  
319-310-9819

**Maintenance Manager**  
Landon Geronzin  
224-381-0104

**Oakdale Operations Manager**  
Brad Swearingen  
319-530-7489

**Operations Supervisor, Water Plant**  
Jared Barthelman  
319-330-9783

**Electric Distribution Manager**  
Chris Roberts  
319-631-1924

**Mechanical Distribution Manager**  
Gary Hayslett  
319-541-0503

**Industrial Control Systems Manager (Meters & Controls)**  
Ray Osbon  
319-573-6351

**Operations Manager**  
Jeremiah Greiner  
319-929-1188

**Chilled Water Plant Manager**  
Tom Andreski  
734-309-5142

**Operations Supervisor, High Quality Water**  
Vacant

**Operations Supervisor, Maintenance**  
Ray Forman  
319-330-9783

**High Voltage Supervisor**  
Will Kober  
319-331-0970

**24/7 Contact Main Power Plant Control Room**  
Primary:319-335-5137  
Secondary:319-335-5135

**Chilled Water 24/7 Control Room**  
319-335-8580

**High Quality Water Services On-Call**  
#1: 319-359-0537  
#2: 319-359-0900

**Water Plant 24/7 Water Lab**  
319-335-5165

**Electrical Distribution On-Call**  
#1: 319-331-0512  
#2: 319-331-0511

**Mechanical Distribution On-Call**  
#1: 319-631-3710  
#2: 319-631-3607

**Meters & Controls On-Call**  
#1: 319-631-6384

**Utilities Locator**  
Lee Pitlik  
319-560-7157

**Financial Analyst**  
Tyler Cherry  
319-721-9430

**Safety Coordinator**  
Chad Stonebraker  
608-778-9385

**IT-Business Network**  
Michael Lindholm  
319-471-2115

**Environmental Compliance**  
Mark Maxwell  
319-631-1950  
Melissa Gilmartin  
641-485-6116

**Manager, Energy Data Center**  
George Paterson  
319-330-4578

**Site Administrator**  
Sherry Roe  
319 248 5449



# Who to call?

No answer or not satisfied?

- Senior leadership, 24/7

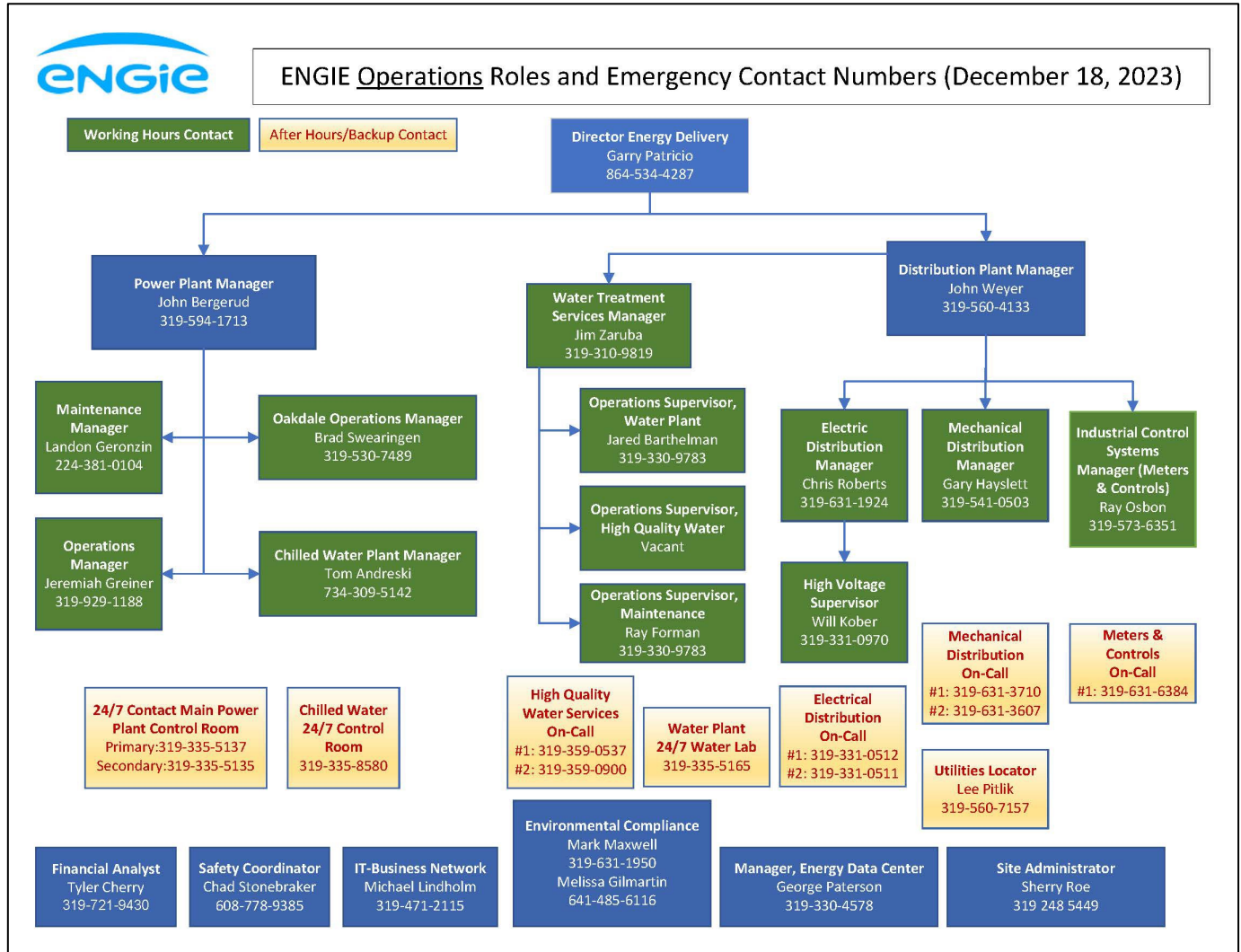
**Business hours (0700-1530)**

- ENGIE managers
- FM@YourService

**Operations after-hours**

- On-call staff

Business / administrative related



# Campus Portfolio

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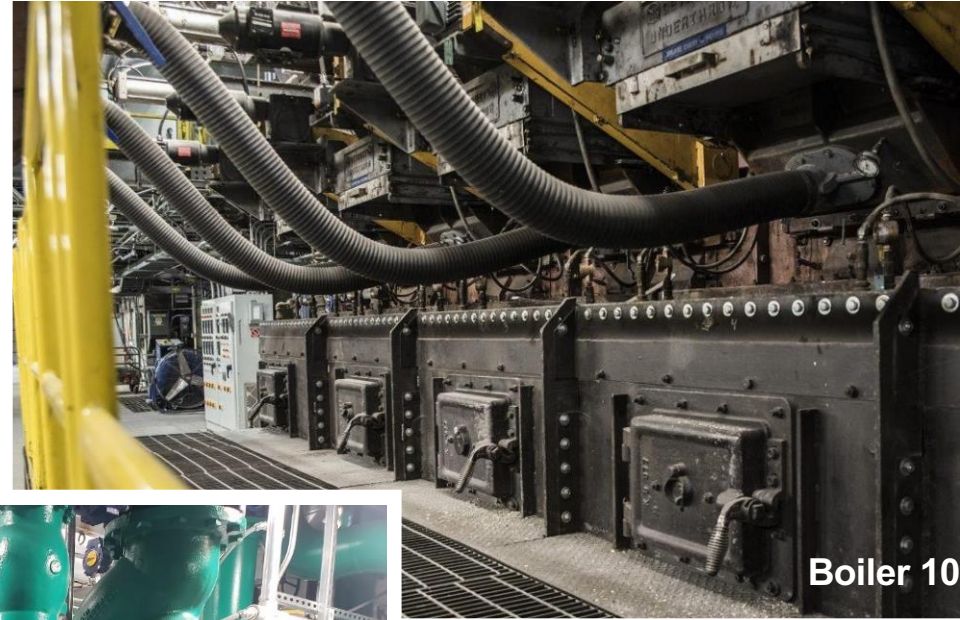
## → Main Power Plant

- 7 boilers
- 2 satellite boilers
- 760 kpph capacity
  
- 3 steam turbine generators
- 4 natural gas engines
- 39.6 MW capacity





Natural Gas  
Engine Generators



Boiler 10



TG6



CCW  
System



RO  
Train



**NEW TURBINE GENERATORS 7 and 8**





# Campus Portfolio

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## → Water Plant

- Source of Potable Water for the Campus.
  - Research facility for advanced studies in Environmental Engineering
- Production Capacity
  - Average Daily Production: 2.4 MG
  - Max Day Production: 5.2 MG





Intake Structure



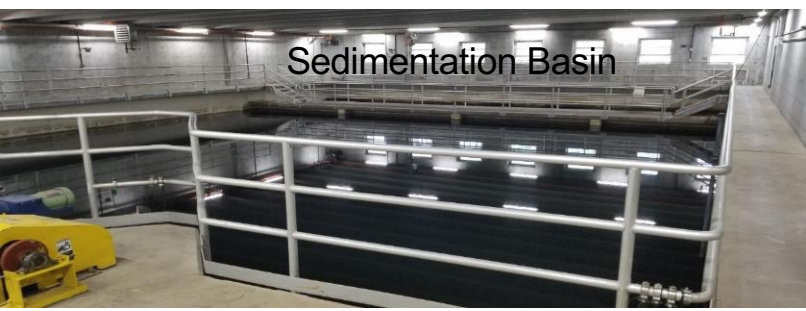
RO Trains



High Service Pump



Flocculation Mixing Basins



Sedimentation Basin



Water Tower

# Campus Portfolio

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## → Chilled Water Plants

- Chiller Plant 1 & Chiller Plant 2
- Northwest Chiller Plant
- North Campus Chiller Plant
- 14 chillers total
  - ~60% electric
  - ~40% steam
  - 43,300 tons cooling capacity





1B Plant Cooling Towers



NW Plant Cooling Towers



CH-7  
(4,000 Ton Steam Unit)



UIHC CW  
Control  
Valve



Heat Exchanger  
(UIHC for MRI  
cooling)



CW Distribution Pump



CH-3A & CH-3B (2,400 Ton Electric Units)

# Campus Portfolio



## → Electrical Distribution

- Peak load of 68 MW
- Over 45 miles of 13.8kV underground cable, via concrete-encased duct banks and approximately 300 vaults
- Over 250 building substation transformers & associated switchgear
- Connected to MidAmerican Energy grid at two substations shared with MidAmerican Energy, one at 161kV, one at 69kV. System contains an Across Campus Tie (ACT) to connect the two substations in the event of an emergency.
- Maintains ~2,700 outdoor lights-- streetlights, parking lot, and walkway lights.



HV Electric Vault



HV SG at PBSB



HV Transformer



HV M Loop SG



Building 480v SG



SUB U



# Campus Portfolio



## → Mechanical Distribution

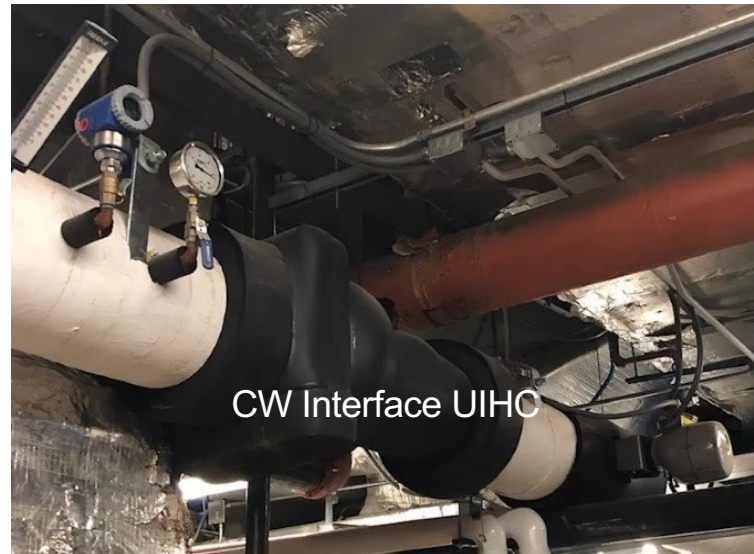
- Tunnels, vaults, and direct-buried piping for steam and condensate, chilled water and domestic water piping and hydrants, compressed air, as well as storm and sanitary sewer collection systems.
- ~14,500 ft of steam distribution tunnels (roughly 2.75 miles). Most all new piping now direct buried.
- 89 steam distribution vaults.
- 4 hot water distribution vaults.
- Piping:
  - Steam, 78,000 feet of 1" to 30" pipe, 20 and 150 psig distribution systems
  - Chilled Water, 48,000 feet of up to 36" pipe
  - Domestic Water, 186,000 feet of up to 20" pipe.
  - Storm and Sanitary, 300,000 feet of up to 36" pipe.
  - Hot Water, 1,628 feet of pipe.
  - Compressed Air, 23,533 feet of pipe.
- Underground Locator as part of Iowa One Call system. 1,000 locate tickets annually



Steam Tunnel



UG Utility density example



CW Interface UIHC



Hydrant



Steam Pressure Reducing Station UIHC

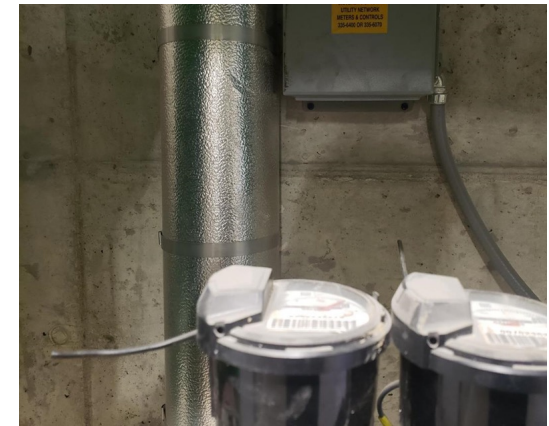


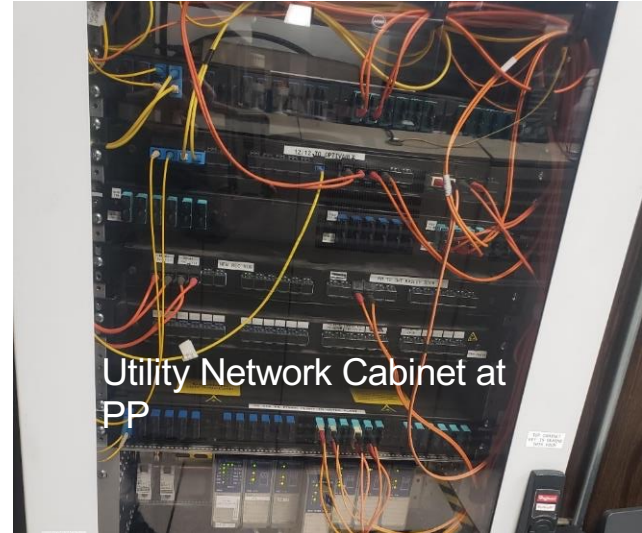
# Campus Portfolio

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## → Meters & Controls

- Maintains Utility Controls Network
  - Platform upon which Power Plant, Chilled Water, Water Plant, substation and Oakdale control systems reside.
  - Transmits meter data for revenue billing and utilities operations data for historical collection and analysis.
- Maintains 65 miles of fiber optic cable (separate from ENGIE and UI IT systems) with numerous servers, workstations, network switches, routers. Compliant with industry cybersecurity standards.
- ~425 electric meters, ~100 chilled water interfaces with 118 chilled water meters, 163 steam meters, 76 CW metering PLCs, and bringing ~100 water meters onto the network.





# Campus Portfolio

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## → Oakdale Power Plant

- 4 gas boilers, 57 kpph capacity
- 2 gas generators, 2.85 MW capacity
- 5 chillers, 2,240 tons capacity





CH-01 (600 Ton Electric Unit)



Natural Gas Engine Generator



Water Softeners



Oakdale Boilers (1-4)

# Campus Portfolio

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## → High Quality Water Services

- Chemical treatment to 90 closed loops for building air conditioning systems.
- Campus pools and therapy spas at CRWC, FH, Sports Medicine, UIHC; hydraulics modeling wave basins main and Oakdale campuses.
- High Quality Water Systems in ~45 buildings consisting of RO, DI and softening systems for heating & cooling systems, humidification, labs, and processing of medical equipment.
- Disinfection and sampling of new/remodeled/repared piping systems, chlorination/dechlorination, main break sampling.
- Oakdale Campus Water System
- State and federal permit-required bacteria and lead/copper sampling.
- ~300 water meters for monthly billing.
- Sampling and analysis for regulated storm water outfall discharges and environmental regulatory reporting.



CRWC Pool Equipment



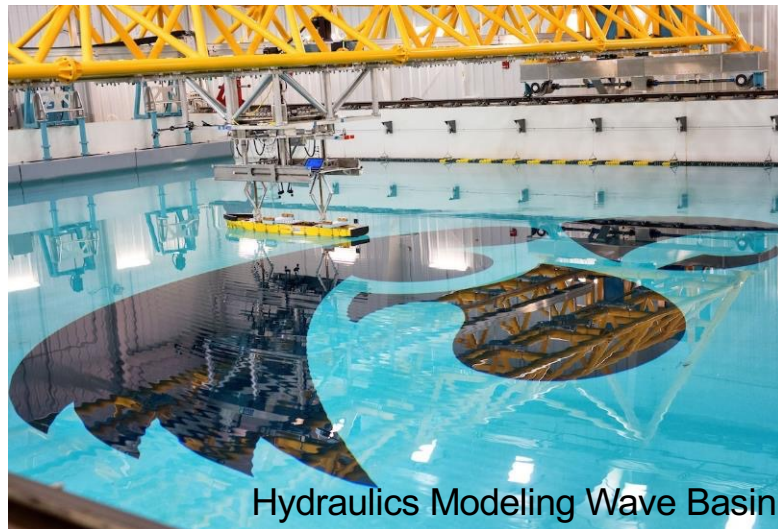
CRWC Competition Pool & Dive Pool



CRWC Pool Equipment



PBDB RO Train



Hydraulics Modeling Wave Basin



Voxman RO Train

**IOWA**



# Building Coordinator

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Next meeting:

February 21, 2024, via zoom 11 AM to 12 PM

## Proposed Agenda:

- FM 2027 Goals
- Facilities Information Systems



# Thank you!

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