OCF PAST AND PRESENT

First presentation 10 years ago, January 2010

Original Functions:
EH&S, Energy & Real Property

Current Functions:
EH&S, Energy, Res Hall and CC Capital, Space and Asset Management, Campus Lets, & Emergency Management
OCF FUTURE

Increased staff in two areas:

Energy and Carbon:

EH&S:

Additional Developments

Updating Res Hall asset life cycle

More Res Hall program metrics

Starting CC asset Life Cycle

Implementing more AiM O&M campuses
“By the end of SUNY at 75, and well ahead of the Climate Act’s 2040 deadline, we have set a goal that 100% of all our electricity system-wide will come from zero-carbon resources.”

Chancellor Johnson
“By the end of SUNY at 75, and well ahead of the Climate Act’s 2040 deadline, we have set a goal that 100% of all our electricity system-wide will come from zero-carbon resources.”

We owe it to our students to try to prevent our own species from going the way of the dinosaurs. Absolute disaster is encroaching more quickly even than climate scientists expected, in the form of horrific wildfires like those that have just displaced so many people and destroyed an estimated billion animals in Australia; rising sea levels, inland flooding, and extreme weather of all kinds; melting polar ice; crop failures; and a frightening rate of extinctions.
HUMAN IMPACT ON THE EARTH

- 347 AD First Oil Wells
- 1740 Modern Coal Mining
- 1760 Start of the Industrial Revolution
- 1791 Turbine invented
- 1794 Internal Combustion Engine
- 1859 First Modern Drilling for Oil
- 2020 Climate Crisis
Global Fossil Fuel Consumption

Global primary energy consumption by fossil fuel source measured in terawatt hours (TWh)

- Natural Gas
- Crude Oil
- Coal

1800 1850 1900 1950 2000 2017

OurWorldInData.org/fossil-fuels/ • CC BY
The Greenhouse Effect

Some sunlight that hits the earth is reflected. Some becomes heat.

CO₂ and other gases in the atmosphere trap heat, keeping the earth warm.
CONGRATULATIONS!
YOU DID IT

THE 2020 EO88 REPORT – SUNY MEETS 20% GOAL
**Goals SUNY has Met**

- **20% x 2020** reduction in EUI from 2010-11 (Current Reduction including planned projects as of April 2019 ≈20%) (EO88)
- GHG reduction of **30% x 2020** from 1990 levels (Current Reduction 39.2%) (State Energy Plan)

**State Energy Plan Additional Goals**

- **40% x 2030** reduction in GHG from 1990 base
- **85% x 2050** reduction in GHG from 1990 base by
- **50% x 2030** electricity from renewable energy

**EO166 Goal**

- **28% x 2025** reduction in GHG from 2005 base in support of the Paris Accord

---

**CLCPA Goals**

- 185 trillion Btu energy use reduction by 2025 from
- Doubling solar deployment to 6,000 megawatts by 2025
- Deploying 3,000 megawatts of energy storage by 2030
- 70% electricity from renewable energy by 2030
- Quadrupling NY’s offshore wind to 9,000 megawatts by 2035
- 100% clean electricity (emission free) by 2040
- 100% economy-wide net-zero carbon emissions by 2050
Climate Leadership Community Protection Act Timeline

- **January 1, 2020**: Takes effect
- **June 30, 2021**: PSC Establish Program
- **January 1, 2022**: DEC Establish GHG limits and Cost of Carbon
- **January 1, 2023**: CAC submit Final Scoping Plan
- **January 1, 2024**: DEC Rules and Regulations
- **July 1, 2024**: PSC Review of Programs for 9 GW Wind, 6 GW Solar, and 3GW Storage

Source: Information provided by the Business Council of New York State and the governor’s office based on deadlines set out in the statute.
“And while we decarbonize our electricity, we are electrifying aspects of our operations that today require the burning of fossil fuels, from heating and cooling to transportation..”

Chancellor Johnson
Decarbonize Buildings and transportation

Clean the grid through installation of more renewable and carbon-free energy
HEAT PUMPS AND GEOTHERMAL

Residential and light commercial grade
Institutional grade Heat Pumps – District Heating
EN253 Flexible site distribution piping
Thermal Storage
# NY-GEO 2020 • The Northeast's Premier Heat Pump Conference

**Wednesday, March 25 • Day 1 Events**

**8:00–9:00**


**9:00–10:00**

**Welcome/Housekeeping:** John Ciocaccio / Board Member, NY-GEO  
Bill Nowak / Executive Director, NY-GEO

**Opening Remarks:** John Franceschina / President, NY-GEO

**Day 1 Keynote:** Alicia Barton, CEO, NYSERDA

**Rooms → Tracks →**

- **Salon B, C**  
  **PROGRAMS & POLICY TRACK**

- **Empire Room**  
  **DESIGN TRACK**

- **Salon D**  
  **BUILDING ELECTRICIFICATION**

- **Salon A**  
  **HEAT PUMP TECHNOLOGY**

- **Board Room**  
  **SPECIAL EVENTS**

**10:00–11:00**

**Programs & Policy Track**

**UPDATE:** The Future of Clean Heating & Cooling Programs in New York State  
Wendy MacPherson / NYSERDA

**New:** Grounded In Reality: Better Ground Source Heat Pump Design  
Lisa Meline P.E. / Meline Engineering

**2020 GeoStar Top Job**  
Geothermal Project Presentations  
5 Finalists: TBA  
For Entry Details  
See Conference Main Menu

**New:** Heat Pumps 101: An Introduction to Heat Pump Technologies  
Jay Egg / Egg Geothermal

**Sponsored by GeoStar**

**11:00–11:30**

**Coffee Break & Mingling with Exhibitors (Ask About Sponsoring)**

**11:30–12:30**

**New:** Navigating Codes, Standards & Practical Experience in GSHP Design  
Lisa Meline P.E. / Meline Engineering

**New:** Heat Pumps' Role in Environmentally Beneficial Electrification  
Bob Wyman / Consultant

Jerry Acton / Physicians, Scientists & Engineers for Healthy Energy

**Update:** NYSERDA’s Air Source & Ground Source Heat Pump Study Results  
Scott Smith / NYSERDA

**Other Speakers TBA**

**CGD: Designing the Mechanical System**  
Session 9 of 10  
(Registered CGD students only)  
Ed Lohrenz / GEOptimize Inc.
NET ZERO WEBINARS

Workshop Module Schedule

1. 2/10 or 11 Overview Net Zero Building Concepts, Techniques & Benefits
2. 2/24 or 25 Deep Dive Construction & High-Performance Products
3. 3/9 or 10 Deep Dive into Air Barrier Development & Implementation
4. 3/23 or 24 Net Zero HVAC Strategies and Controls + DHW
5. 3/30 or 31 Contracting Net Zero: Construction Documents & Bidding
6. 4/6 or 7 Deep Energy Retrofits: Gut Rehab or Full Occupancy Retrofits
7. 4/13 or 14 Refrigerant Management Design, Construction, & Operations
8. TBD Construction Manager/Subcontractor/Tradesperson: Class & Field
SUNY Leading by Example

7 – Affordable and Clean Energy; 9 – Industry, Innovation and Infrastructure; 11 – Sustainable Cities and Communities; and 13 – Climate Action
NEW YORK HIGHER ED LARGE SCALE RENEWABLE ENERGY (NY HE LSRE)

- RFP for Virtual Power Purchase Agreement - February
- Campus Decisions in May or June
- Award Summer 2020
- Second Phase to follow
GREEN REVOLVING LOAN FUND

- Low interest loans ≈ 2.5% no additional fees
- Projects that save on energy budget
- Launching this Spring
Susan Fassler
Sustainable Facilities Manager scfassle@esf.edu
Something happened...

What should I do?

Take this cling.

Visit response.suny.edu

Flip over to see resources available for those affected by sexual and interpersonal violence.


Connecting you to:
- Hospitals/Medical Providers
- Rape Crisis/Domestic Violence Resources
- Police/Public Safety
- LGBTQI+ Resources
- Resources for Immigrants
- Legal Resources
- Title IX & Campus Response
- Key Policies in 120 Languages

NYS Domestic & Sexual Violence Hotline: 1-800-942-6906
English & Espanol/Multi-language Accessibility
Deaf or Hard of Hearing: 711

Vertical business cards may be handed out to students or placed in business card holders.

Mirror clings can be placed in academic and residential bathrooms on the bottom left hand corner, and replaced when taken by a student.
http://www.nysmesonet.org/weather/local#network=nysm&stid=laur
Integrated Workplace Management System (IWMS) AKA AiM

Working on Implementation of O&M

Four campuses live: Plattsburgh
Alfred State
Cobleskill
Jefferson CC
MOU were signed in 2015, superseding the 2006 MOU.

Per the MOU the Campus must:

- adhere to laws, rules and regulations;
- expend educational facilities bonds appropriately;
- comply with, all applicable policies and procedures;
- project capitalization form upon substantial completion;
- maintain suitable and auditable records; and
- complete and certify the nongovernmental (private use) survey on an annual basis.