IDEA COVID-19
Working Group
August 20, 2020
Audio has been muted for all participants. Please remain muted until otherwise instructed to ensure the best sound quality for all participants. When invited, please participate in our open discussion by clicking the microphone at the bottom or your screen. We strongly encourage you to re-mute your line after you have made your comments.

You may also send any comments or questions via “Chat” during the prepared remarks portion of our call. Presenters will respond at the conclusion of their remarks. The Chat icon can be found at bottom of your screen.

If you are having problems with video or audio, please send a note via the Chat.

Today’s call is being recorded and will be made available to the public via download or streaming. Links will be emailed to all registered attendees as soon as it is available.
Program Supported by IDEA’s Annual Sustaining Sponsors

Clearway Energy

Johnson Controls

Solar Turbines

THERMO SYSTEMS

International District Energy Association
Agenda

• Back to School Survey Results
• Expert Panel Discussion – The State of the Campus
  • Re-Opening Plans – What will campus look like and how will you keep students, faculty and staff safe?
  • What is your plan “B” – What will happen in the face of an outbreak?
  • How has Facility Management & Utility Operations evolved?
  • Financial considerations for campuses
  • Forecasting the future
• Open Discussion
Survey Results
Reopening Campus?

• 90% of respondents indicated that there would be a ‘return’ to campus this all. However, how many will be returning varied:

- Less than 50% - a smaller subsection of students
- Between 50%-75% - a subsection of students
- 100% - All Students
What is Driving the Decision Making

- Current state/local public health guidance (masks are mandatory, etc.)
- Current rate of local spread and infection ratio per CDC guidance
- Pre-arrival testing/screening results and availability of testing
- Incidents and reporting of outbreaks during school period
- Availability and efficacy of vaccine
In-Person vs. Virtual Learning

• **100%** of respondents indicated that virtual learning will be part of the strategy.

% of classes that will be virtual

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25%</td>
<td></td>
</tr>
<tr>
<td>&gt;25% &lt;50%</td>
<td></td>
</tr>
<tr>
<td>&gt;50% &lt;75%</td>
<td></td>
</tr>
<tr>
<td>&gt;75% &lt;100%</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Priority for In-Person Classes

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab sciences</td>
<td>80.00%</td>
</tr>
<tr>
<td>International students</td>
<td>40.00%</td>
</tr>
<tr>
<td>Typical senior courses</td>
<td>20.00%</td>
</tr>
<tr>
<td>Typical freshman courses</td>
<td>20.00%</td>
</tr>
<tr>
<td>Other</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Operational Protocols in Play

• Protocols widely adopted by respondents

- Reduced population densities (common space, elevators, etc)
- Increased air flow and outside air exchanges
- 100% mask requirement on campus, indoors and outdoors
- One-way indoor traffic patterns in hallways, stairwells
- Electrostatic sprayers for disinfecting surfaces
- UV treatments in air handlers

• Some, newer protocols being explored/evaluated:
  • Waste-water testing for presence of COVID-19
  • Global Plasma Solutions Needle-point bi-polarization in classroom AHU’s.

IDEA COVID-19 Working Group
August 20, 2020
Concerns About Impacts of Reduced Occupancy/Operations During Upcoming Heating Season

• Difficult to deliver the “hands-on” component of training for plumbing and the trades

• Supporting even a limited number of people with 100% OA becomes very energy intense and expensive

• Without a lot of people on campus, it becomes obvious that most of the energy is consumed by the research labs

• Ongoing health and welfare of staff and faculty

• Systems aren’t designed to take 100% OA during heating season. Re-circulation of air will be required.

• Wildly differing building utility load profiles

• Funding and budgets
Keeping Campus Safe – Residence Halls & Living

• Majority of respondents (82%) indicated that occupancy (both building and per unit) has been reduced

• Just under half (47%) – indicated that dining hours or dining facilities had been expanded.

• Other measures adopted include:

![Bar chart showing the percentage of respondents who have adopted various measures to keep campus safe.

- Modifications to shared living areas (bathrooms, laundry, etc): 40.00%
- Dining will feature pre-packaged food only, no buffets: 30.00%
- Limit students eligible to live on campus (i.e. freshman only): 20.00%
- Closure of one or more residence halls due to configuration (suites): 10.00%
}
Keeping Campus Safe – Classrooms

• Universally, respondents indicated that their campus has adjusted seating for social distancing (6’ distance)

• Also being implemented:

  - Reduction of physical class size
  - Sequenced and staggered space use - 3 days in classroom; 2 day virtual (or similar)
  - Create outdoor classrooms
  - More class blocks (start earlier in the day/go later)
  - Limit hours of classroom time

• Not in play? Reducing maximum enrollment; reducing course offerings; or moving to trimester/block system

IDEA COVID-19 Working Group
August 20, 2020
Keeping Campus Safe – Beyond the Classroom

• The adoption of new cleaning standards for shared equipment/resources across areas such as the library, labs, gyms, and other recreation and shared spaces will be the new norm.

• Other measures being implemented include:

- Increase hours of operation and frequency of room turnover for cleaning
- Cancellation of in-person clubs or ad-hoc meetings
- Advanced scheduling for use
Panel Discussion - Introductions

- **Lalit Agarwal**, Director, Maintenance & Utility Services, University of Nebraska
- **Juan Ontiveros**, Associate Vice President for Utilities and Energy Management, UT Austin
- **Doug Wells**, Director, Engineering Services, Physical Plant Management, California State University - Northridge
- **Paul Zmick**, Senior Associate Director, Energy & Utilities, University of Virginia
IDEA Resources and Information Sharing

• **IDEA Connect** (Member Forum) – Q&A posting, information sharing

• **COVID19 Emergency Preparedness site**
  • Sharing written emergency preparedness plans?
  • Sharing “shelter in place” protocols
  • Inventory/PPE
  • HR and/or other business best practices
  • If sensitive, please provide redacted documents or in form to be edited

  Email content to Jason.idea@districtenergy.org for posting

• Industry blog – headlines and updates
Thank you again to IDEA’s Annual Sustaining Sponsors
Thank you

Questions? Contact IDEA at idea@districtenergy.org
www.districtenergy.org
+ 1-508-366-9339

Robert Thornton, CEO, IDEA, rob.idea@districtenergy.org