Webinar Abstract

DEVELOPING ALTERNATIVE STRATEGIES TO DECARBONIZE CAMPUS UTILITIES

ABSTRACT

The burning of fossil fuels releases carbon in the form of CO2, a major driver of Climate Change and Global Warming. "Greenhouse Gases" (GHGs) absorb outgoing radiation from the Earth's surface and re-radiate back, warming our environment. Gases include Water Vapor, CO2, CH4, and N20. Excessive GHGs lead to Global Warming. Excessive CO2 is due to Human Activity and is the chief offender.

"Mitigation" strategies are the most important part of decarbonizing our environment because it deals directly with curbing our emissions of GHGs

Global intervention has started to prevent a climate doomsday. In 2015, 194 countries signed the Paris Agreement with the goal of curbing earth warming to 2 degrees Celsius. Action and implantation strategies are more plausible for wealthier Western countries. The overwhelming concern surrounds increasing GHG emissions in developing countries from population dense regions of Africa and Asia where new and economically feasible technologies are desperately needed.

Many Higher-Educational Institutions, through State-wide initiatives or the American College & University Presidents' Climate Commitment, are answering the call to decarbonize and are demonstrating their environmental stewardship by adopting Climate Action Plans and endeavoring to research and utilize new technologies that emphasize *CO2 Mitigation Strategies.*

LEARNING OBJECTIVES

Understand Current and Developing CO2 Mitigation Strategies

- Explore practical and available technologies that may be favorable for implementation at your institution.
- Understand how to evaluate the Big Picture –construct your timeline for decarbonization.
- Consider the potential costs, risks, and funding sources across a range of decarbonization strategies.

WEBINAR'S PURPOSE

We will discuss the three primary Mitigation Strategies for "Carbon Footprint Reduction":

1. Reducing Energy Use
   - Opportunities through building renovations and deferred maintenance projects
   - Focus on the heavy hitters –Laboratory Buildings
   - Case Study
   - Funding Mechanisms
2. Shifting to Low-Carbon Energy Sources
   - Opportunities for regional influencers –Policy and Subsidies, Geographical Assets, Utility, and Industry-based Partnerships
   - Full or Partial Campus Utility Conversion –District and Precinct level considerations
   - Case Study –The State of New Mexico and New Mexico State University
3. Utilizing Carbon Capture and Storage (CCS)
   - Current Technology Limitations, Future Outlook

PRESENTERS

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