

# **Big Ten and Friends Mechanical & Energy**

**October 8 – 11, 2017**

Michigan State University  
Kellogg Hotel & Conference Center

Hosted by: Dan Francis, Stacy Nurenberg, & Todd Wilson

# Michigan State University

- Founded 1855
- 5,200 Acre campus
- 23,533,285 GSF
- 556 “Buildings” (105 with academic space)
- ~50,000 total students (40,000 undergrad)
- ~12,000 Faculty & Staff

# Energy Sources

- Coal Free by March 2016
- 100% Natural Gas
- Co-Gen Capacity
  - 1.3 million lbs. of steam
  - 100 MW
- Upgrading from 20 to 100 MW local utility interconnect
- 10 MW Solar (in design)
- Campus Well System



# Energy Consumption



- 65 MW Peak (Sept 2016)
- 680,000 lb/hr Peak (Jan 2014)
- Energy Transition Plan
- Energy Conservation Measures
- Focus on Steam vs. Electric?
- New Construction & use of Life Cycle cost analysis.

# Major Current Projects

- FRIB (Facility for Rare Isotope Beams)  
\$700M DOE Project



# Major Current Projects

- Breslin Student Events Center Renovations & Basketball Hall of History Addition



- 26,000 sqft concourse expansion
- 33,000 sqft addition for Hall of History

# Major Current Projects

- 1855 Place



# Major Current Projects

- Deferred Maintenance Projects/ECM's
  - Wells Hall Induction System
  - IM West Pool & Locker room HVAC
  - Various CV to VV upgrades (air & water)





# Conference Planning Schedule

- Venue and Dates set.
- Seek input on topics (surveys)
- Sponsorship Acceptance – Winter 2016/17
- Seek Presenters – Spring 2017
- Conference sign up – Summer 2017

<http://ipf.msu.edu/big10-and-friends/>

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**KEEP CALM  
AND  
SPARTY ON**